JAN

Access DB# 84666

SEARCH REQUEST FORM

Scientific and Technical Inf rmation Center

Requester's Full Name: FONDA Examiner #: 71970 Date: 12-16-02
Art Unit: 1623 Phone Number 30 8-1620 Serial Number: 09/890562
Mail Box and Bldg/Room Location: _____ Results Format Preferred (circle): PAPER DISK E-MAIL
→8B19 →8A05

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): see attached assignment sheet

Earliest Priority Filing Date: 2-1-00

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

RECEIVED
DEC 17 2002
CHEM (STIC)

Please search compounds of (any context) attached claims and methods of using them to treat or prevent arteriosclerosis/atherosclerosis.

Thanks.
K.

Jan Delaval
Reference Librarian
Biotechnology & Chemical Library
CM1 1E07 – 703-308-4498
jan.delaval@uspto.gov

****

STAFF USE ONLY

Searcher: Jan
Searcher Phone #: 4498
Searcher Location: _____
Date Searcher Picked Up: 1/22/03
Date Completed: 1/22/03
Searcher Prep & Review Time: _____
Clerical Prep Time: 15
Online Time: + 25

Type of Search

NA Sequence (#) _____
AA Sequence (#) _____
Structure (#) ✓
Bibliographic _____
Litigation _____
Fulltext _____
Patent Family _____
Other _____

Vendors and cost where applicable

STN ✓
Dialog _____
Questel/Orbit _____
Dr.Link _____
Lexis/Nexis _____
Sequence Systems _____
WWW/Internet _____
Other (specify) _____

PTO-1590 (8-01)

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=> fil reg
FILE 'REGISTRY' ENTERED AT 18:51:25 ON 22 JAN 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   21 JAN 2003  HIGHEST RN 479664-17-0
DICTIONARY FILE UPDATES:  21 JAN 2003  HIGHEST RN 479664-17-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available.  See HELP
PROPERTIES for more information.  See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> d sta que l18
L1              STR
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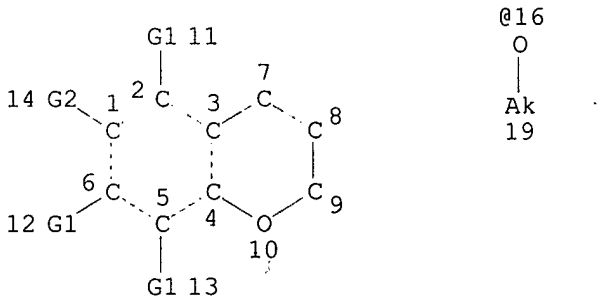


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VAR G1=H/AK
VAR G2=OH/16
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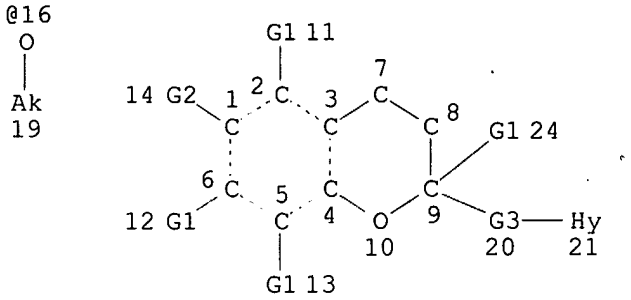
CONNECT IS M1  RC AT   9
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  16

STEREO ATTRIBUTES: NONE
L3         2795 SEA FILE=REGISTRY CSS FUL L1
L6              STR
```

Jan Delaval
Reference Librarian
Biotechnology & Chemical Library
CM1 1E07 – 703-308-4498
jan.delaval@uspto.gov



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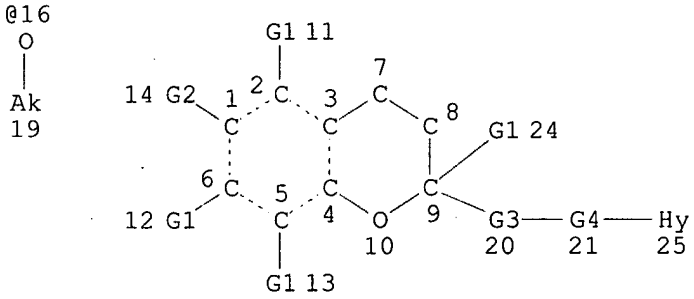
VAR G2=OH/16
REP G3=(0-6) CH2
NODE ATTRIBUTES:
CONNECT IS M1 RC AT 21
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M1 O AT 21

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE
L8 38 SEA FILE=REGISTRY SUB=L3 CSS FUL L6
L10 STR



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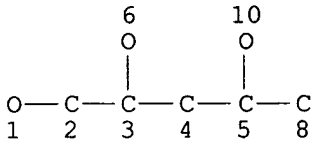
VAR G2=OH/16
REP G3=(0-6) CH2
REP G4=(0-1) O
NODE ATTRIBUTES:
CONNECT IS M1 RC AT 25
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M1 O AT 25

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE
L11 59 SEA FILE=REGISTRY SUB=L3 CSS FUL L10
L12 21 SEA FILE=REGISTRY ABB=ON PLU=ON L11 NOT L8
L14 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE

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L16            4 SEA FILE=REGISTRY SUB=L3 SSS FUL L14
L17            2 SEA FILE=REGISTRY ABB=ON  PLU=ON  L16 NOT (MXS/CI OR C29H50O2)

L18           23 SEA FILE=REGISTRY ABB=ON  PLU=ON  (L12 OR L17)


=> d his l18-

     (FILE 'REGISTRY' ENTERED AT 18:33:57 ON 22 JAN 2003)
L18           23 S L12,L17
                 SAV L18 FONDA890C/A

     FILE 'HCAOLD' ENTERED AT 18:44:14 ON 22 JAN 2003
L19            0 S L18

     FILE 'HCAPLUS' ENTERED AT 18:44:18 ON 22 JAN 2003
L20           42 S L18
                 E CCI/PA,CS
L21           28 S E3-E34 AND L20
                 E YOSHIKAWA T/AU
L22          272 S E3
                 E YOSHIKAWA TOSHIKAZU/AU
L23          661 S E2,E3
                 E MURASE H/AU
L24           26 S E3
L25           47 S E25
L26            1 S E27
                 E YOSHIDA N/AU
L27          395 S E3,E4
                 E YOSHIDA NORIMASA/AU
L28          165 S E3
L29           32 S L20 AND L22-L28
L30            3 S L20 AND ?ARTERIO?
                 E ANTIARTERIO/CT
L31         5486 S E6,E7
                 E E6+ALL
                 E E6+ALL
L32        26978 S E5+NT
L33            2 S MONKEBERG?(L)?SCLERO?
L34            3 S L20 AND L31-L33
L35            3 S L30,L34
L36           19 S 2 ALPHA D GLUCOPYRAN? METHYL 2 5 7 8 TETRAMETHYLCHROMAN 6 OL

     FILE 'REGISTRY' ENTERED AT 18:49:05 ON 22 JAN 2003
L37            1 S 160455-95-8
L38            0 S 160455-95-8/CRN
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     FILE 'HCAPLUS' ENTERED AT 18:49:32 ON 22 JAN 2003
L39           36 S L37
L40           37 S L36,L39
L41           43 S L20,L29,L30,L35,L40
L42           40 S L41 AND (PD<=20011009 OR PRD<=20011009 OR AD<=20011009)
L43            3 S L41 NOT L42

     FILE 'REGISTRY' ENTERED AT 18:51:25 ON 22 JAN 2003

=> d ide can 137

L37  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2003 ACS
RN   160455-95-8  REGISTRY
CN   .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-
     benzopyran-2-yl)methyl (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol
FS   STEREOSEARCH
MF   C20 H30 O8
SR   CA
LC   STN Files:   BIOSIS, CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.
```

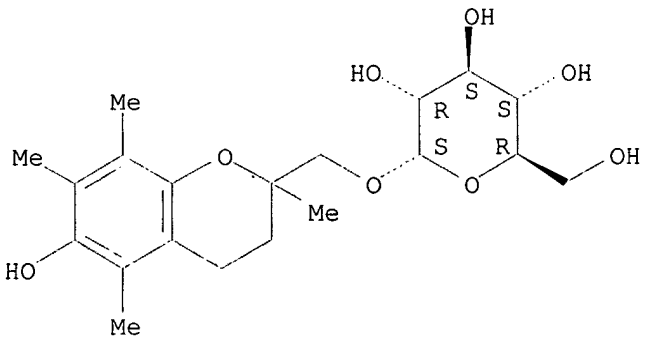


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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

              36 REFERENCES IN FILE CA (1962 TO DATE)
               3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
              36 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE   1:  137:257414

REFERENCE   2:  137:159008

REFERENCE   3:  136:335241

REFERENCE   4:  136:303396

REFERENCE   5:  136:299474

REFERENCE   6:  136:284177

REFERENCE   7:  136:257109

REFERENCE   8:  136:212827

REFERENCE   9:  136:189097
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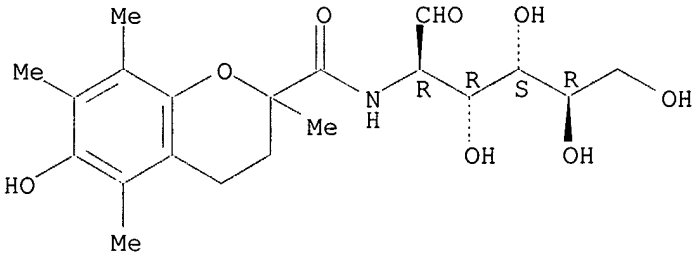
REFERENCE 10: 136:10935

=> s l18 not l37
L44 22 L18 NOT L37

=> d ide can tot

L44 ANSWER 1 OF 22 REGISTRY COPYRIGHT 2003 ACS
RN 445311-31-9 REGISTRY
CN D-Glucose, 2-deoxy-2-[[(3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)carbonyl]amino]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H29 N O8
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

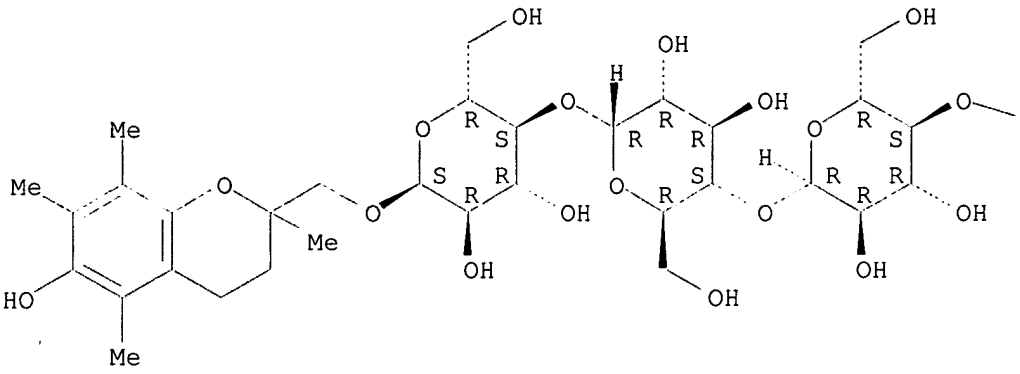
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:159312

L44 ANSWER 2 OF 22 REGISTRY COPYRIGHT 2003 ACS
RN 364783-93-7 REGISTRY
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C62 H100 O43
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



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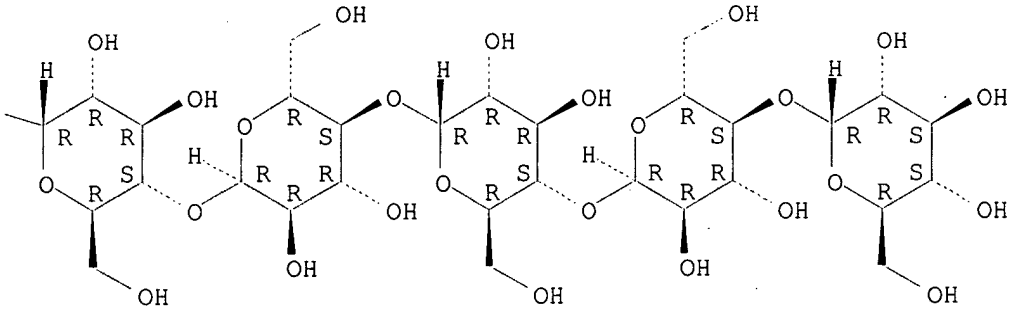


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

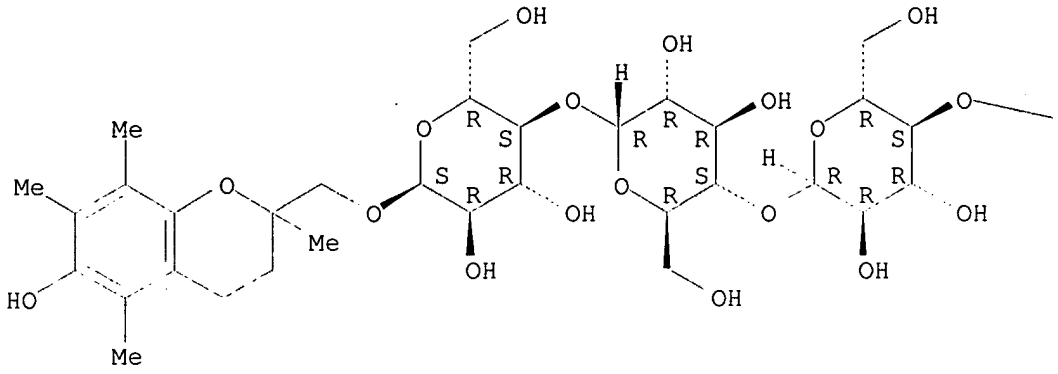
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:293712

L44 ANSWER 3 OF 22 REGISTRY COPYRIGHT 2003 ACS
RN 364783-92-6 REGISTRY
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C56 H90 O38
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



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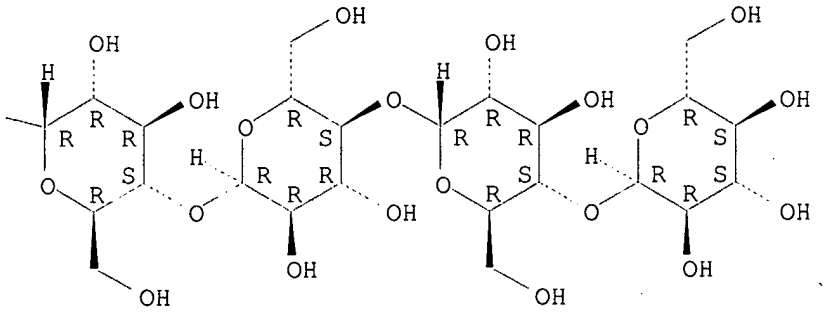


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1962 TO DATE)
2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

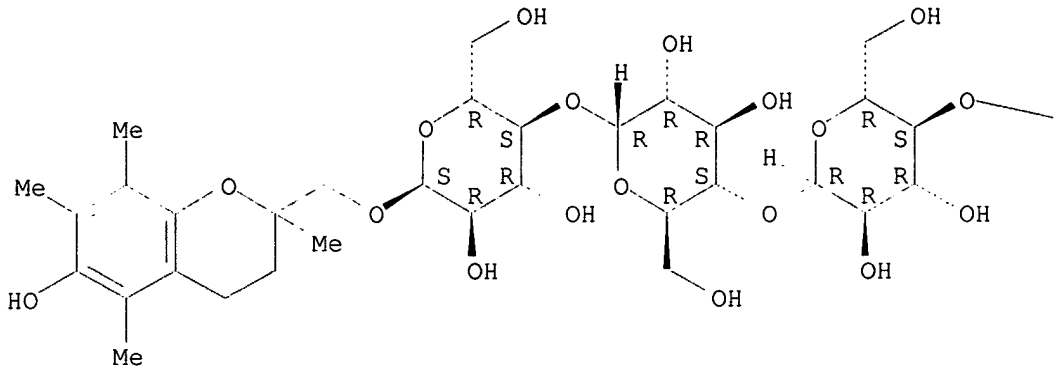
REFERENCE 1: 136:10935

REFERENCE 2: 135:293712

L44 ANSWER 4 OF 22 REGISTRY COPYRIGHT 2003 ACS
RN 362481-00-3 REGISTRY
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C50 H80 O33
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



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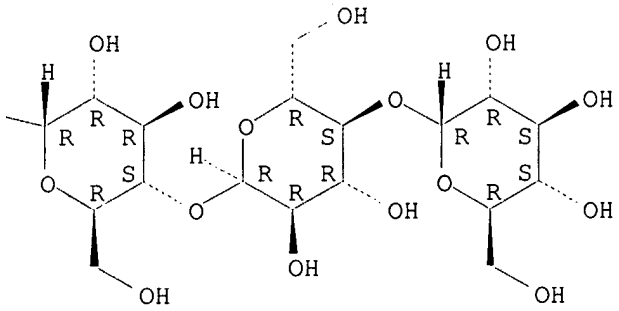


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1962 TO DATE)
3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 136:10935

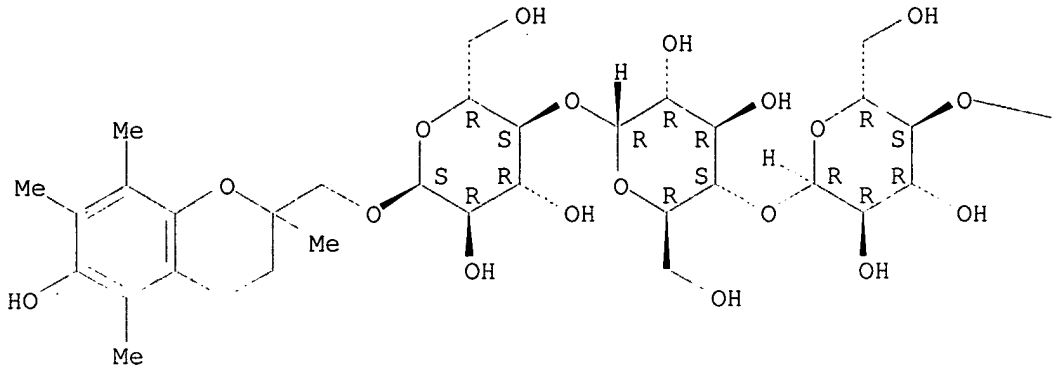
REFERENCE 2: 135:293712

REFERENCE 3: 135:274586

L44 ANSWER 5 OF 22 REGISTRY COPYRIGHT 2003 ACS
RN 362480-98-6 REGISTRY
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C44 H70 O28
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



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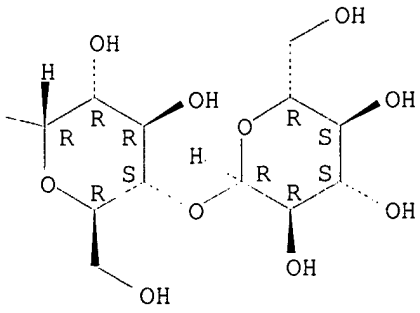

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 136:10935

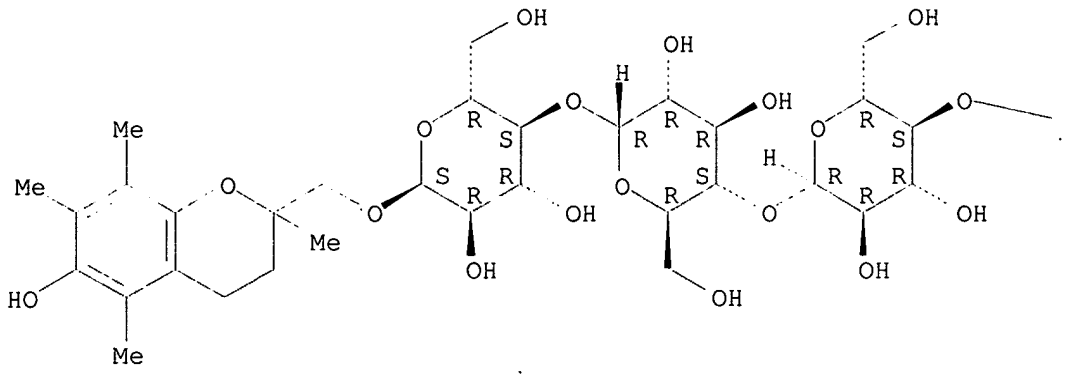
REFERENCE 2: 135:293712

REFERENCE 3: 135:274586

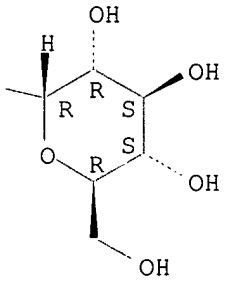
L44 ANSWER 6 OF 22 REGISTRY COPYRIGHT 2003 ACS
RN 362480-97-5 REGISTRY
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C38 H60 O23
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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4 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 136:189097

REFERENCE 2: 136:10935

REFERENCE 3: 135:293712

REFERENCE 4: 135:274586

L44 ANSWER 7 OF 22 REGISTRY COPYRIGHT 2003 ACS
RN 362480-96-4 REGISTRY
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)
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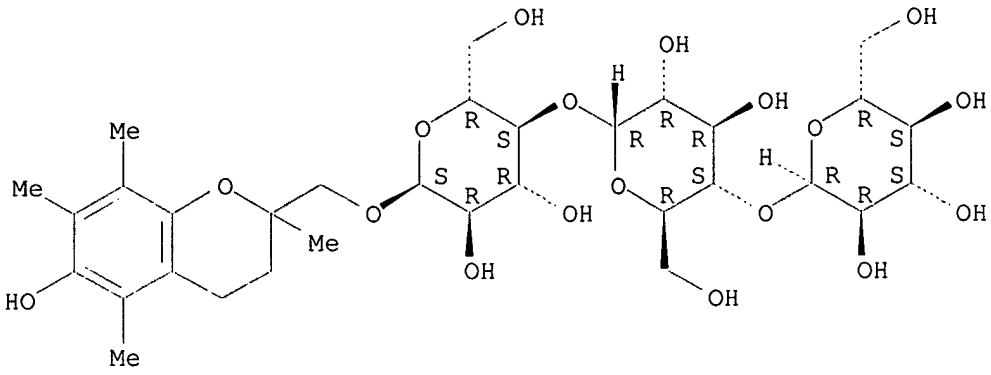
MF C32 H50 O18
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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4 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 136:189097

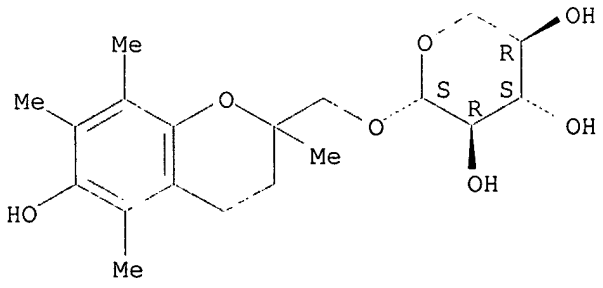
REFERENCE 2: 136:10935

REFERENCE 3: 135:293712

REFERENCE 4: 135:274586

L44 ANSWER 8 OF 22 REGISTRY COPYRIGHT 2003 ACS
RN 246262-53-3 REGISTRY
CN .beta.-D-Xylopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C19 H28 O7
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

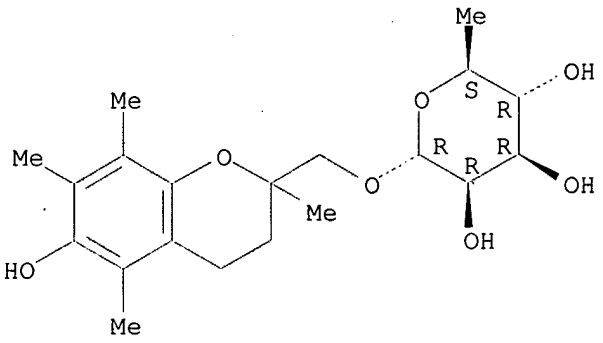
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 131:287968

L44 ANSWER 9 OF 22 REGISTRY COPYRIGHT 2003 ACS
RN 246262-52-2 REGISTRY

CN .alpha.-L-Mannopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl 6-deoxy- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H30 O7
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 131:287968

L44 ANSWER 10 OF 22 REGISTRY COPYRIGHT 2003 ACS
RN 246262-51-1 REGISTRY
CN .beta.-L-Galactopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl 6-deoxy- (9CI) (CA INDEX NAME)
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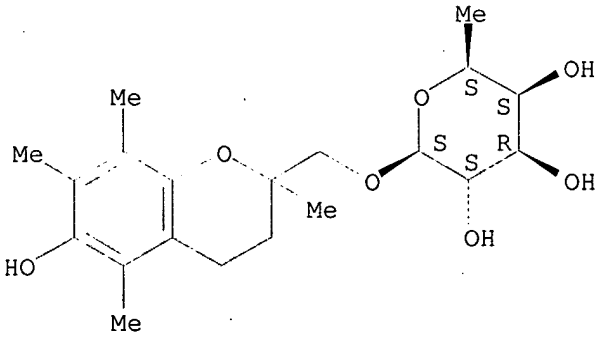
MF C20 H30 O7
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 131:287968

L44 ANSWER 11 OF 22 REGISTRY COPYRIGHT 2003 ACS
RN 220282-94-0 REGISTRY
CN .alpha.-D-Mannopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)
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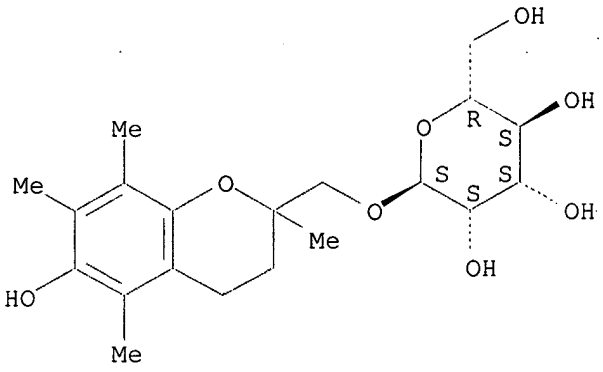
MF C20 H30 O8
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1962 TO DATE)
3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

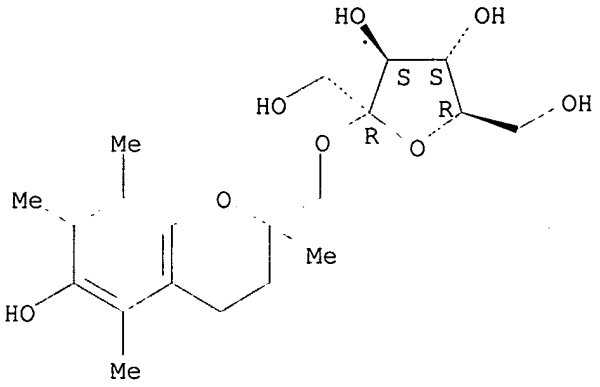
REFERENCE 1: 133:271412

REFERENCE 2: 131:287968

REFERENCE 3: 130:152654

L44 ANSWER 12 OF 22 REGISTRY COPYRIGHT 2003 ACS
RN 220282-93-9 REGISTRY
CN .beta.-D-Fructofuranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H30 O8
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

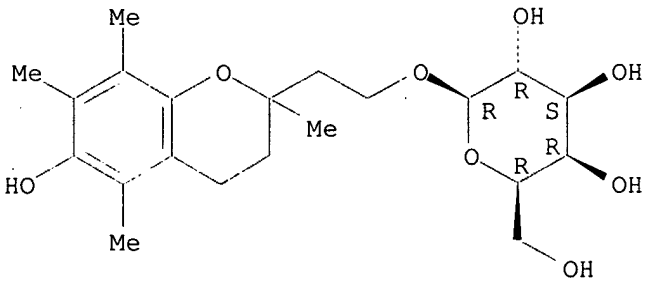
2 REFERENCES IN FILE CA (1962 TO DATE)
2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 133:271412

REFERENCE 2: 130:152654

L44 ANSWER 13 OF 22 REGISTRY COPYRIGHT 2003 ACS
RN 220282-92-8 REGISTRY
CN .beta.-D-Galactopyranoside, 2-(3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)ethyl (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C21 H32 O8
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

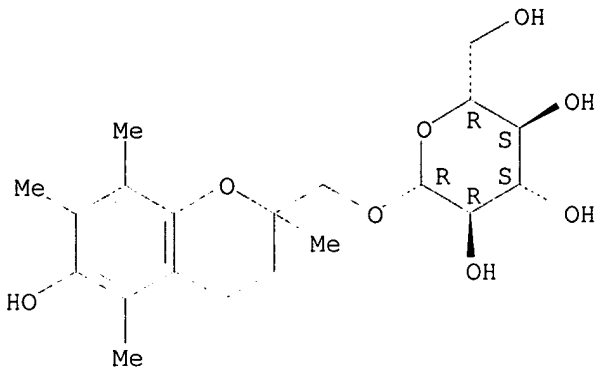
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 130:152654

L44 ANSWER 14 OF 22 REGISTRY COPYRIGHT 2003 ACS
RN 220282-91-7 REGISTRY
CN .beta.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)
FS STEREOSEARCH

MF C20 H30 O8
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



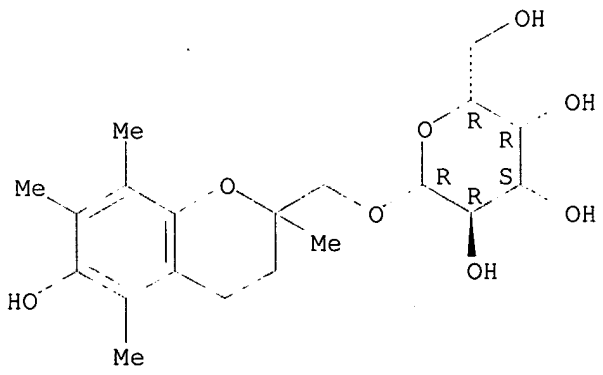
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 130:152654

L44 ANSWER 15 OF 22 REGISTRY COPYRIGHT 2003 ACS
RN 197315-53-0 REGISTRY
CN .beta.-D-Galactopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H30 O8
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4 REFERENCES IN FILE CA (1962 TO DATE)
4 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 133:271412

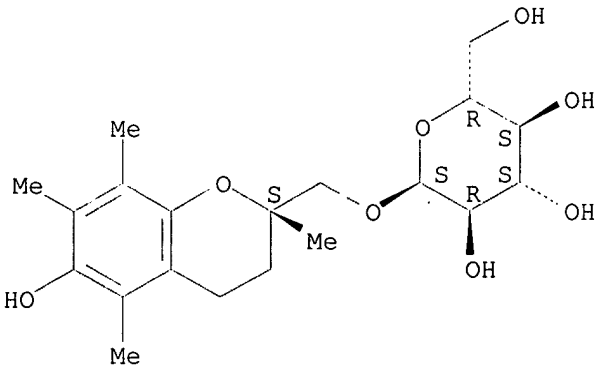
REFERENCE 2: 131:287968

REFERENCE 3: 128:267792

REFERENCE 4: 127:307610

L44 ANSWER 16 OF 22 REGISTRY COPYRIGHT 2003 ACS
RN 187799-02-6 REGISTRY
CN .alpha.-D-Glucopyranoside, [(2S)-3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methyl (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H30 O8
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

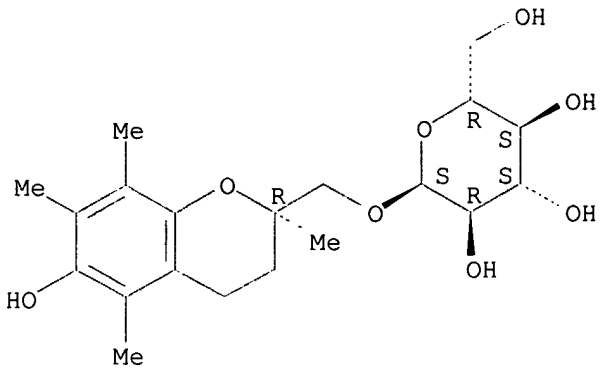
2 REFERENCES IN FILE CA (1962 TO DATE)
2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:89990

REFERENCE 2: 126:199722

L44 ANSWER 17 OF 22 REGISTRY COPYRIGHT 2003 ACS
RN 187799-01-5 REGISTRY
CN .alpha.-D-Glucopyranoside, [(2R)-3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methyl (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H30 O8
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



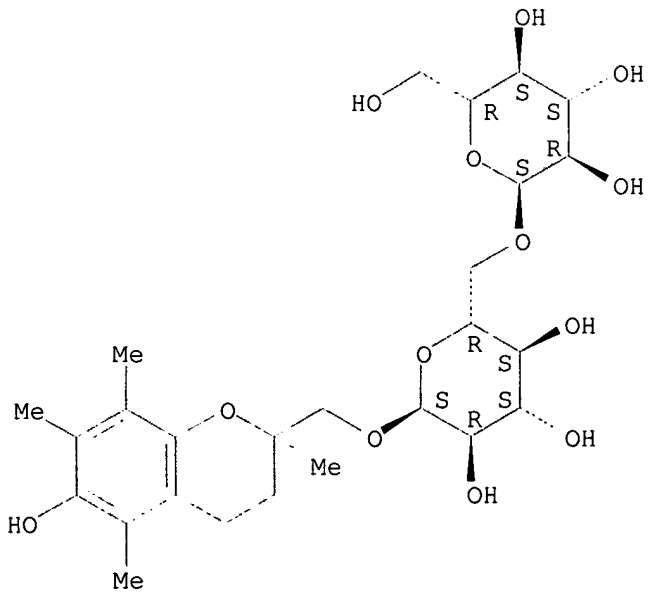
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 126:199722

L44 ANSWER 18 OF 22 REGISTRY COPYRIGHT 2003 ACS
RN 184843-57-0 REGISTRY
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl 6-O-.alpha.-D-glucopyranosyl- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C26 H40 O13
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



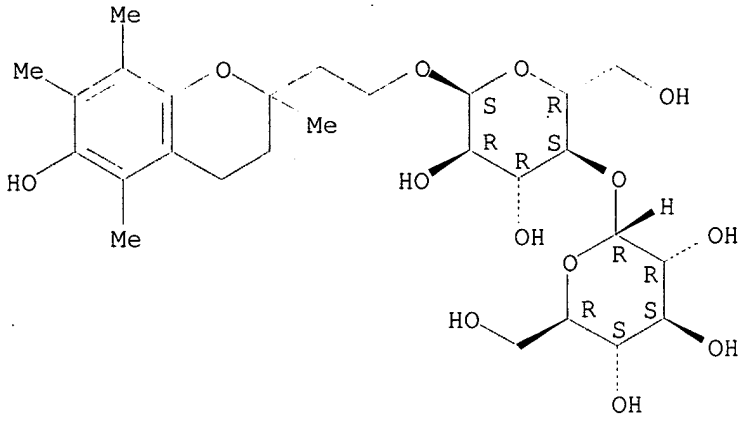
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 126:75190

L44 ANSWER 19 OF 22 REGISTRY COPYRIGHT 2003 ACS
RN 160455-98-1 REGISTRY
CN .alpha.-D-Glucopyranoside, 2-(3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)ethyl 4-O-.alpha.-D-glucopyranosyl- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C27 H42 O13
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



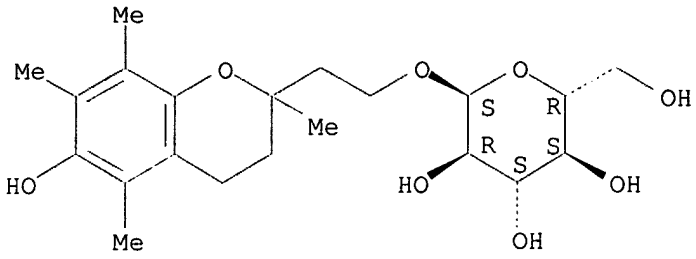
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 122:81889

L44 ANSWER 20 OF 22 REGISTRY COPYRIGHT 2003 ACS
RN 160455-97-0 REGISTRY
CN .alpha.-D-Glucopyranoside, 2-(3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)ethyl (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C21 H32 O8
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

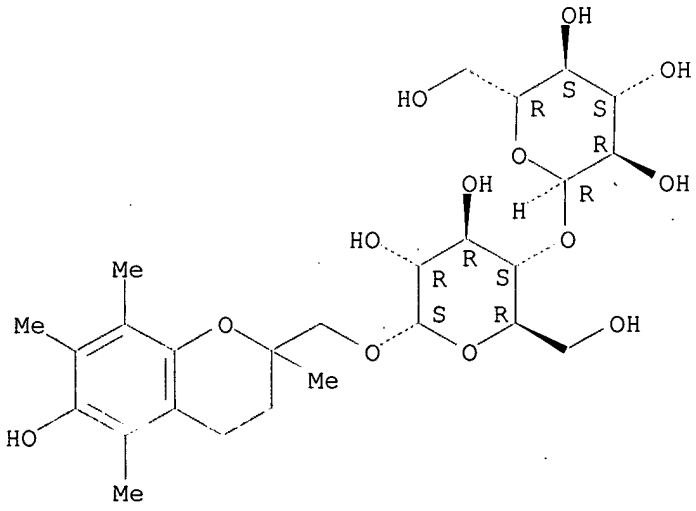
2 REFERENCES IN FILE CA (1962 TO DATE)
2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 128:267792

REFERENCE 2: 122:81889

L44 ANSWER 21 OF 22 REGISTRY COPYRIGHT 2003 ACS
RN 160455-96-9 REGISTRY
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl 4-O-.alpha.-D-glucopyranosyl- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C26 H40 O13
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4 REFERENCES IN FILE CA (1962 TO DATE)
4 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 136:10935

REFERENCE 2: 135:293712

REFERENCE 3: 135:274586

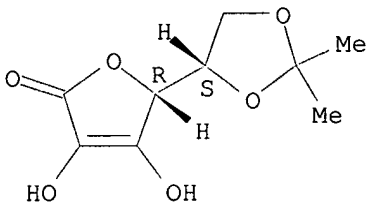
REFERENCE 4: 122:81889

L44 ANSWER 22 OF 22 REGISTRY COPYRIGHT 2003 ACS
RN 144088-87-9 REGISTRY
CN Galactaric acid, [3,4-dihydro-2,7,8-trimethyl-2-(4,8,12-trimethyltridecyl)-2H-1-benzopyran-6-yl] ester, 2-ester with 5,6-O-(1-methylethylidene)-L-ascorbic acid (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C43 H66 O14
CI IDS
SR CA
LC STN Files: CA, CAPLUS

CM 1

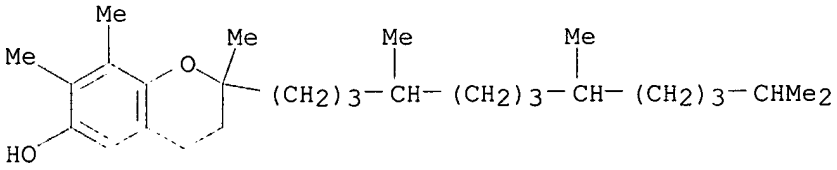
CRN 15042-01-0
CMF C9 H12 O6

Absolute stereochemistry.



CM 2

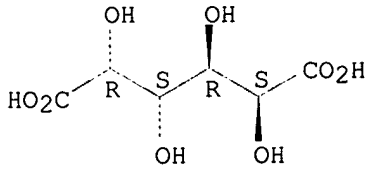
CRN 7616-22-0
CMF C28 H48 O2



CM 3

CRN 526-99-8
CMF C6 H10 O8

Relative stereochemistry.



1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 117:198235

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FILE 'HCAPLUS' ENTERED AT 18:52:06 ON 22 JAN 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 22 Jan 2003 VOL 138 ISS 4
FILE LAST UPDATED: 21 Jan 2003 (20030121/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all hitstr tot l43

L43 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2003 ACS
AN 2002:977190 HCAPLUS
TI A Novel Vitamin E Derivative (TMG) Protects Against Gastric Mucosal Damage Induced by Ischemia and Reperfusion in Rats
AU Ichikawa, Hiroshi; Yoshida, Norimasa; Takano, Hiroshisa; Ishikawa, Takeshi; Handa, Osamu; Takagi, Tomohisa; Naito, Yuji; Murase, Hironobu; Yoshikawa, Toshikazu
CS Department of Medicine, Kyoto Prefectural University of Medicine, Kyoto, 602-8566, Japan
SO Digestive Diseases and Sciences (2003), 48(1), 54-58
CODEN: DDSCDJ; ISSN: 0163-2116
PB Kluwer Academic/Plenum Publishers
DT Journal
LA English
CC 1 (Pharmacology)
AB The aim of the present study was to investigate the antioxidative effects of water-sol. vitamin E deriv., **2-(.alpha.-d-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol** (TMG), on ischemia-reperfusion (I/R) -induced gastric mucosal injury in rats. Gastric ischemia was induced by applying a small clamp to the celiac artery and reoxygenation was produced by removal of the clamp. The area of gastric mucosal erosion, the concn. of thiobarbituric acid-reactive substances, and the myeloperoxidase activity in gastric mucosa significantly increased in I/R groups compared with those of sham-operated groups. These increases were significantly inhibited by pretreatment with TMG. The contents of both mucosal TNF-.alpha. and CINC-2.beta. in I/R groups were also increased compared with the levels of those in sham-operated groups. These increases of the inflammatory cytokines were significantly inhibited by the treatment with TMG. It is concluded that TMG inhibited lipid peroxidn. and reduced development of

the gastric mucosal inflammation induced by I/R in rats.

L43 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2003 ACS
AN 2002:344575 HCAPLUS
DN 137:89990
TI Redox reactions of tocopherol monoglucoside in aqueous solutions: a pulse radiolysis study
AU Kapoor, Sudhir; Mukherjee, Tulsi; Kagiya, Tsutomu V.; Nair, Cherupally Krishnan K.
CS Radiation Chemistry & Chemical Dynamics Division, Bhabha Atomic Research Centre, Mumbai, 400 085, India
SO Journal of Radiation Research (2002), 43(1), 99-106
CODEN: JRARAX; ISSN: 0449-3060
PB Japan Radiation Research Society
DT Journal
LA English
CC 6-7 (General Biochemistry)
Section cross-reference(s): 4, 18, 22, 30
AB The reactions between tocopherol monoglucoside (TMG), a water-sol. vitamin-E deriv., with Br2.cntdot..hivin., N3.cntdot., (SCN)2.cntdot..hivin., NO2.cntdot., OH.cntdot. and various halogenated peroxyl radicals were examd. using a pulse radiolysis technique. The results demonstrate that TMG forms a stable phenoxyl radical at pH > 6.8. The thus-formed phenoxyl radical shows pH-dependent decay kinetics and is disproportionated by 2nd order kinetics at pH 2.3. It was obsd. that the TMG reactivity towards a halogenated peroxyl radical increases with the no. of halogen atoms at the carbon atom having a peroxyl group. The reaction between the TMG phenoxyl radical and ascorbic acid was also examd. using a pulse radiolysis technique. The results indicate that the TMG phenoxyl radical is repaired by ascorbate. Kinetic studies indicate that TMG may act as an antioxidant to repair free-radical damage to some biol. important compds. The one-electron redn. potential for TMG was found to be 0.522 V .+-.0.06 vs. NHE.
ST redox reaction tocopherol monoglucoside aq pulse radiolysis
IT Redox potential
(biol.; redox reactions of tocopherol monoglucoside in aq. solns.)
IT Peroxides, biological studies
RL: BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)
(haloperoxyl radicals; redox reactions of tocopherol monoglucoside in aq. solns.)
IT Reduction
(one-electron; redox reactions of tocopherol monoglucoside in aq. solns.)
IT Antioxidants
Redox reaction
Redox reaction kinetics
(redox reactions of tocopherol monoglucoside in aq. solns.)
IT Tocopherols
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(redox reactions of tocopherol monoglucoside in aq. solns.)
IT Radicals, biological studies
RL: BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)
(redox reactions of tocopherol monoglucoside in aq. solns.)
IT 2122-46-5, Phenoxyl radical
RL: ARU (Analytical role, unclassified); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(redox reactions of tocopherol monoglucoside in aq. solns.)
IT 50-81-7, Ascorbic acid, biological studies **187799-02-6**
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(redox reactions of tocopherol monoglucoside in aq. solns.)
IT 3352-57-6, Hydroxyl, biological studies 10102-44-0, Nitrogen oxide (NO2), biological studies 12595-70-9, Bromide (Br21-) 12596-60-0, biological studies 34504-17-1 69884-58-8 73761-31-6 73761-32-7 108083-10-9 108083-11-0 118449-53-9 131919-05-6 150716-79-3 442689-98-7
RL: BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)
(redox reactions of tocopherol monoglucoside in aq. solns.)
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Borek, C; Proc Natl Acad Sci (USA) 1986, V83, P1490 HCAPLUS
(2) Burton, G; Chem Res 1986, V19, P194 HCAPLUS
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(11) Land, E; Trans Faraday Soc 1967, V63, P1181 HCAPLUS
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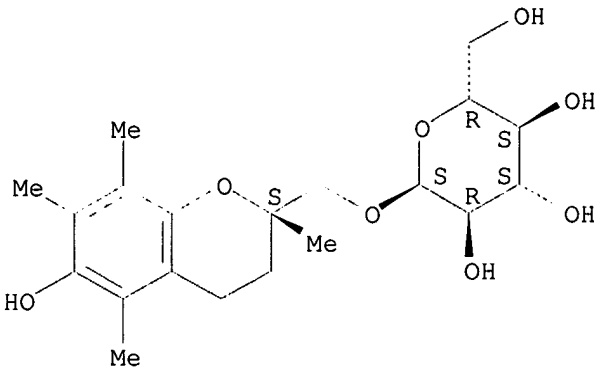
(33) Weiss, J; Environ Health Perspect 1997, V105, P1473 HCAPLUS
(34) Yoshida, N; Antioxidants and Redox Signalling 1999, V1, P563
IT **187799-02-6**
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(redox reactions of tocopherol monoglucoside in aq. solns.)
RN 187799-02-6 HCAPLUS
CN .alpha.-D-Glucopyranoside, [(2S)-3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L43 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2003 ACS
AN 2002:263144 HCAPLUS
DN 137:257414
TI Inhibitory effect of a novel water-soluble vitamin E derivative on atherosclerosis in rabbits
AU **Yoshida, Norimasa**; **Murase, Hironobu**; Kunieda, Tsutomu; Toyokuni, Shinya; Tanaka, Tomoyuki; Terao, Junji; Naito, Yuji; Tanigawa, Toru; **Yoshikawa, Toshikazu**
CS First Department of Internal Medicine, Kyoto Prefectural University of Medicine, Kamigyo-ku, Kyoto, Kawaramachi-Hirokoji, 602-8566, Japan
SO Atherosclerosis (Shannon, Ireland) (2002), 162(1), 111-117
CODEN: ATHSBL; ISSN: 0021-9150
PB Elsevier Science Ireland Ltd.
DT Journal
LA English
CC 1-8 (Pharmacology)
AB A novel vitamin E deriv. that is freely sol. in water, **2-(.alpha.-d-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol** (TMG), was evaluated for ability to inhibit development of atherosclerosis in Watanabe heritable hyperlipidemic (WHHL) rabbits or cholesterol-loaded New Zealand White rabbits. Although TMG rapidly entered the circulation blood after oral administration, the blood TMG concn. remained low, while neither TMG nor its metabolites appeared in the low-d. lipoprotein (LDL) fraction. TMG did not decrease serum total cholesterol and the various lipoprotein-assocd. cholesterol fractions (very LDL-, or high-d. lipoprotein- (HDL) cholesterol). TMG reduced the serum concn. of thiobarbituric acid-reactive substances (TBARS; an index of lipid peroxidn.) in cholesterol-loaded rabbits but not WHHL rabbits. Nonetheless, TMG inhibited aortic atherosclerosis as effectively as probucol in both models. Our results indicate that TMG opposes progression of atherosclerosis not only by preventing oxidn. of LDL, but also by presently unknown mechanisms. Even an antioxidant with no uptake by LDL apparently can inhibit development of atherosclerosis despite a very low serum concn.
ST vitamin E deriv lipid peroxidn atherosclerosis hyperlipidemia
IT **Antiarteriosclerotics**
(**antiatherosclerotics**; inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)
IT Lipoproteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(high-d.; inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)
IT Lipids, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(hyperlipidemia; inhibitory effect of a vitamin E deriv. on

atherosclerosis in rabbits)
IT Antioxidants
Atherosclerosis
(inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)
IT Glycerides, biological studies
Phospholipids, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)
IT Peroxidation
(lipid; inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)
IT Lipoproteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(low-d.; inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)
IT Lipids, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(peroxidn.; inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)
IT Lipoproteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(very-low-d.; inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)
IT 57-88-5, Cholesterol, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(blood; inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)
IT 79907-49-6
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)
IT 59-02-9, .alpha.-Tocopherol 23288-49-5, Probucol
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); BIOL (Biological study)
(inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)
IT **160455-95-8**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)
RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anon; Lancet 1999, V347, P781
(2) Boisvert, W; Immunol Res 2000, V21, P129 HCAPLUS
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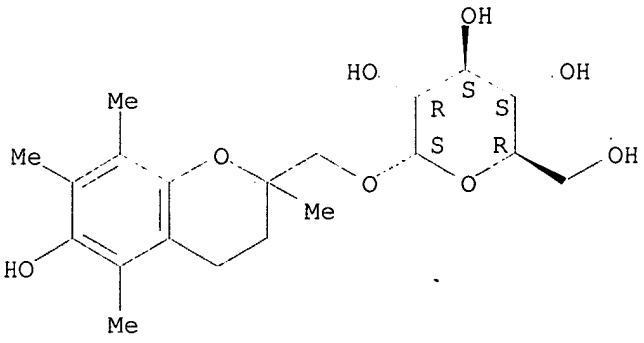
IT **160455-95-8**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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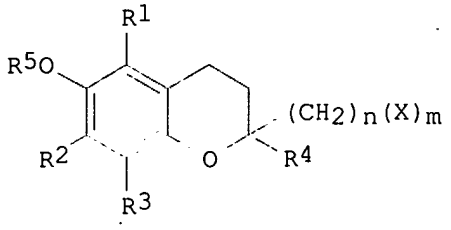
L42 ANSWER 1 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2002:636449 HCAPLUS
DN 137:159008
TI Hair growth-stimulating agents containing chromanol glycosides
IN Fujii, Toshiaki; **Murase, Hironobu**; Kunieda, Tsutomu
PA CCI Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K007-06
ICS A61K031-7042; A61P017-14
CC 62-3 (Essential Oils and Cosmetics)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002234823	A2	20020823	JP 2001-34025	20010209 <--

PRAI JP 2001-34025 20010209 <--
OS MARPAT 137:159008
GI



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AB The invention relates to a hair growth-stimulating agent having sufficient effect with small amt. and providing improved use feel, wherein the agent contg. chromanol glycoside I (R1, R2, R3, R4 = H, lower alkyl; R5 = H, lower alkyl, lower acyl; X = monosaccharide residue, oligosaccharide residue, providing the H atom of the HO group of saccharide residue may be substituted by lower alkyl or lower acyl; n = 0-6; m = 1-6). A hair tonic contg. **2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol** 1, glycerin 2, ethanol 90 g, and water balance to 100 mL was prepd.

ST chromanol glycoside hair growth stimulant

IT Hair preparations
(growth stimulants; hair growth-stimulating agents contg. chromanol glycosides)

IT Glycosides
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair growth-stimulating agents contg. chromanol glycosides)

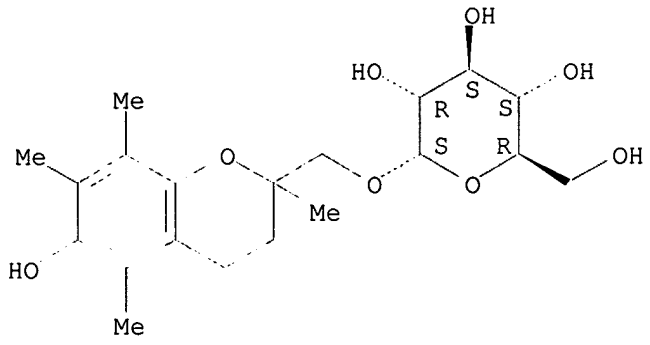
IT **160455-95-8, 2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol**
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair growth-stimulating agents contg. chromanol glycosides)

IT **160455-95-8, 2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol**
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair growth-stimulating agents contg. chromanol glycosides)

RN 160455-95-8 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 2 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:594711 HCAPLUS

DN 137:159312

TI Stabilization of radiopharmaceutical compositions using hydrophilic thioethers and hydrophilic 6-hydroxy chromans
IN Cyr, John E.; Pearson, Daniel A.
PA Diatide, Inc., USA
SO PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K051-12
ICS A61K103-10
CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 8
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002060491	A2	20020808	WO 2001-US50423	20011024 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2000-694992 A1 20001024 <--
US 2000-695360 A1 20001024 <--
US 2000-695494 A1 20001024 <--

AB Radiopharmaceutical compns. which are stabilized by addn. of a hydrophilic thioether, a hydrophilic 6-hydroxy-chroman deriv., or a mixt. of a hydrophilic thioether and a hydrophilic 6-hydroxy-chroman deriv. are described. Several examples are provided demonstrating the stabilizing effects of L-methionine, Trolox, or a combination of the two on lyophilized kit prepns. contg. 99mTc-labeled depreotide, benzodiazepinedione deriv., a glycoprotein IIb/IIa receptor-binding peptide, a peptide chelator, a bisamine bisthiol chelator, or other peptides.

ST technetium 99m radiopharmaceutical stabilization methionine Trolox; thioether hydroxychroman technetium 99m radiopharmaceutical stabilization

IT Immunoglobulins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(fragments, radionuclide targeting moiety; stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)

IT Antibodies
Growth factors, animal
Hormones, animal, biological studies
Peptides, biological studies
Steroids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(radionuclide targeting moiety; stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)

IT Antibiotics
(receptor-binding, radionuclide targeting moiety; stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)

IT Disaccharides
Lipids, biological studies
Monosaccharides
Nucleic acids
Oligosaccharides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(receptor-binding, radionuclide targeting moiety; stabilization of

radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)
IT Chelating agents
Drug delivery systems
Drug delivery systems
Radiopharmaceuticals
Stability
Stabilizing agents
Test kits
(stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)
IT Radionuclides, biological studies
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)
IT Thioethers
RL: MOA (Modifier or additive use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(stabilizers; stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)
IT Integrins
RL: MSC (Miscellaneous)
(.alpha.IIb.beta.3, benzodiazepines binding; stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)
IT 12794-10-4D, Benzodiazepine, derivs.
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(receptor-binding, radionuclide targeting moiety; stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)
IT 490-79-9, Gentisic acid 14133-76-7D, Technetium 99, compds. labeled with, biological studies 445311-85-3D, radiolabeled 445311-86-4D, radiolabeled 445311-87-5D, 99mTc-labeled 445311-88-6D, 99mTc-labeled
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)
IT 23288-60-0, Sodium pertechnetate-99Tc
RL: RCT (Reactant); RACT (Reactant or reagent)
(stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)
IT 10043-66-0D, Iodine 131, compds. labeled with, biological studies
10098-91-6D, Yttrium 90, compds. labeled with, biological studies
13967-64-1D, Dysprosium 165, compds. labeled with, biological studies
13967-65-2D, Holmium 166, compds. labeled with, biological studies
13982-22-4D, Gallium 72, compds. labeled with, biological studies
14041-42-0D, Gadolinium 159, compds. labeled with, biological studies
14041-44-2D, Ytterbium 175, compds. labeled with, biological studies
14158-31-7D, Iodine 125, compds. labeled with, biological studies
14265-75-9D, Lutetium 177, compds. labeled with, biological studies
14391-96-9D, Scandium 47, compds. labeled with, biological studies
14913-49-6D, Bismuth 212, compds. labeled with, biological studies
15715-08-9D, Iodine 123, compds. labeled with, biological studies
15750-15-9D, Indium 111, compds. labeled with, biological studies
15755-39-2D, Astatine 211, compds. labeled with, biological studies
15757-14-9D, Gallium 68, compds. labeled with, biological studies
15757-86-5D, Copper 67, compds. labeled with, biological studies
15766-00-4D, Samarium 153, compds. labeled with, biological studies
15776-20-2D, Bismuth 213, compds. labeled with, biological studies
158615-68-0D, radiolabeled 161889-00-5D, radiolabeled 161889-01-6D, radiolabeled 161889-11-8D, radiolabeled 161889-14-1D, radiolabeled 161889-35-6D, radiolabeled 161889-40-3D, radiolabeled 161889-41-4D,

radiolabeled 161889-42-5D, radiolabeled 161889-44-7D, radiolabeled 161889-45-8D, radiolabeled 161889-46-9D, radiolabeled 161889-49-2D, radiolabeled 161982-26-9D, radiolabeled 161982-27-0D, radiolabeled 161982-33-8D, radiolabeled 161982-53-2D, radiolabeled 161982-55-4D, radiolabeled 161982-58-7D, radiolabeled 161982-62-3D, radiolabeled 161982-69-0D, radiolabeled 174350-31-3D, radiolabeled 174350-32-4D, radiolabeled 174350-33-5D, radiolabeled 174350-35-7D, radiolabeled 174350-37-9D, radiolabeled 174350-38-0D, radiolabeled 174350-42-6D, radiolabeled 174350-43-7D, radiolabeled 174350-47-1D, radiolabeled 174350-48-2D, radiolabeled 174350-51-7D, radiolabeled 174350-52-8D, radiolabeled 174350-53-9D, radiolabeled 174350-56-2D, radiolabeled 174350-62-0D, radiolabeled 174350-64-2D, radiolabeled 174900-23-3D, radiolabeled 177932-82-0D, radiolabeled 217804-02-9D, radiolabeled 217804-03-0D, radiolabeled 217804-04-1D, radiolabeled 259746-53-7D, radiolabeled 345259-42-9D, radiolabeled 345259-52-1D, radiolabeled 345259-54-3D, radiolabeled 345259-57-6D, radiolabeled 345259-59-8D, radiolabeled 345259-60-1D, radiolabeled 345259-61-2D, radiolabeled 345259-62-3D, radiolabeled 345259-63-4D, radiolabeled 345259-64-5D, radiolabeled 345259-68-9D, radiolabeled 345259-69-0D, radiolabeled 345259-71-4D, radiolabeled 345259-73-6D, radiolabeled 345259-74-7D, radiolabeled 345259-75-8D, radiolabeled 345259-84-9D, radiolabeled 345259-85-0D, radiolabeled 345260-19-7D, radiolabeled 345260-21-1D, radiolabeled 445311-33-1D, radiolabeled 445311-34-2D, radiolabeled 445311-35-3D, radiolabeled 445311-36-4D, radiolabeled 445311-38-6D, radiolabeled 445311-39-7D, radiolabeled 445311-40-0D, radiolabeled 445311-41-1D, radiolabeled 445311-42-2D, radiolabeled 445311-43-3D, radiolabeled 445311-44-4D, radiolabeled 445311-45-5D, radiolabeled 445311-46-6D, radiolabeled 445311-47-7D, radiolabeled 445311-48-8D, radiolabeled 445311-49-9D, radiolabeled 445311-50-2D, radiolabeled 445311-51-3D, radiolabeled 445311-52-4D, radiolabeled 445311-53-5D, radiolabeled 445311-54-6D, radiolabeled 445311-55-7D, radiolabeled 445311-56-8D, radiolabeled 445311-57-9D, radiolabeled 445311-58-0D, radiolabeled 445311-59-1D, radiolabeled 445311-60-4D, radiolabeled 445311-61-5D, radiolabeled 445311-62-6D, radiolabeled 445311-63-7D, radiolabeled 445311-64-8D, radiolabeled 445311-65-9D, radiolabeled 445311-66-0D, radiolabeled 445311-67-1D, radiolabeled 445311-68-2D, radiolabeled 445311-69-3D, radiolabeled 445311-70-6D, radiolabeled 445311-71-7D, radiolabeled 445311-72-8D, radiolabeled 445311-73-9D, radiolabeled 445311-74-0D, radiolabeled 445311-75-1D, radiolabeled 445311-76-2D, radiolabeled 445311-77-3D, radiolabeled 445311-78-4D, radiolabeled 445311-80-8D, radiolabeled 445311-81-9D, radiolabeled 445311-82-0D, radiolabeled 445311-83-1D, radiolabeled 445311-84-2D, radiolabeled 445484-05-9D, radiolabeled 445484-06-0D, radiolabeled 445484-08-2D, radiolabeled 445484-10-6D, radiolabeled 445484-13-9D, radiolabeled 445484-16-2D, radiolabeled 445484-23-1D, radiolabeled 445484-24-2D, radiolabeled 445484-32-2D, radiolabeled 445484-33-3D, radiolabeled 446032-90-2D, radiolabeled 446033-25-6D, radiolabeled 446033-27-8D, radiolabeled 446033-29-0D, radiolabeled 446033-30-3D, radiolabeled 446033-32-5D, radiolabeled 446033-35-8D, radiolabeled 446033-39-2D, radiolabeled 446033-42-7D, radiolabeled 446033-48-3D, radiolabeled 446033-54-1D, radiolabeled 446033-62-1D, radiolabeled 446037-77-0D, radiolabeled

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)

IT 63-68-3, L-Methionine, biological studies 348-67-4, D-Methionine 2899-37-8, L-Methioninol 22551-26-4, 3-Methylthio-1,2-propanediol 36489-03-9, 2-(Ethylthio)ethylamine 53188-07-1, Trolox

RL: MOA (Modifier or additive use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(stabilizer; stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)

IT 535-32-0, D-Ethionine 1187-84-4, S-Methyl-L-cysteine 3268-49-3,

3-(Methylthio)propionaldehyde 4378-14-7, Buthionine 5271-38-5, 2-(Methylthio)ethanol 13073-35-3, L-Ethionine 13532-18-8, Methyl 3-(methylthio)propionate 66255-16-1, S-Methyl-D-cysteine 87206-44-8, D-Methioninol 445311-29-5 445311-30-8 **445311-31-9** 445311-32-0
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(stabilizer; stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)

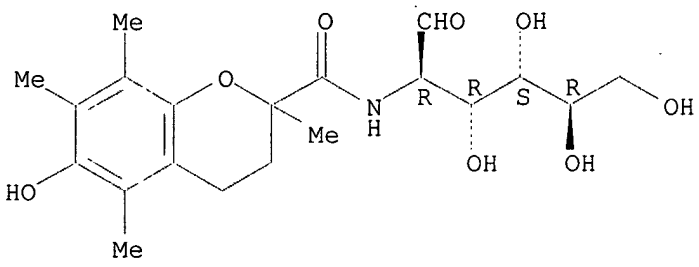
IT 5614-78-8D, 6-Hydroxychroman, derivs.
RL: MOA (Modifier or additive use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(stabilizers; stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)

IT 158615-68-0 174350-32-4 174350-33-5 174350-34-6 445482-69-9 445482-70-2 445482-71-3 445482-72-4 445482-73-5 445482-74-6 445508-67-8
RL: PRP (Properties)
(unclaimed sequence; stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic 6-hydroxy chromans)

IT **445311-31-9**
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(stabilizer; stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)

RN 445311-31-9 HCAPLUS
CN D-Glucose, 2-deoxy-2-[[(3,4-dihydro-6-hydroxy-2,5,7;8-tetramethyl-2H-1-benzopyran-2-yl)carbonyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 3 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2002:347346 HCAPLUS
DN 136:335241
TI Erythrocyte deformation-improving agents containing chromanol glycosides
IN **Murase, Hironobu**; Kunieda, Tsutomu
PA CCI Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K031-7048
ICS A61P001-02; A61P007-00; A61P009-00; A61P009-10; A61P009-12; A61P017-00; A61P017-02; C07H015-26
CC 1-8 (Pharmacology)
Section cross-reference(s): 63
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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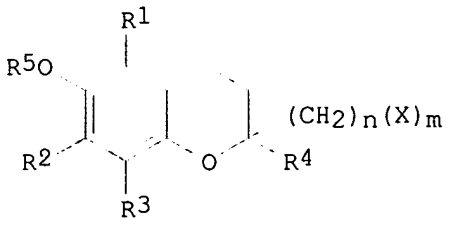
PRAI JP 2000-317077		20001017 <--		

OS MARPAT 136:335241
GI



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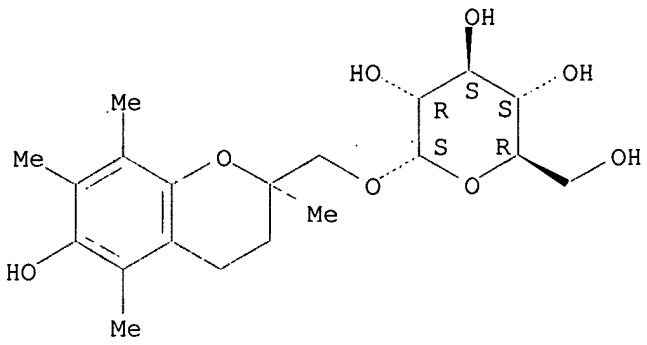
AB The agents, useful for treatment of blood circulation disorders, contain chromanol glycosides I (R1-R4 = H, lower alkyl; R5 = H, lower alkyl, lower acyl; X = sugar residue; n = 0-6; m = 1-6). An erythrocyte dispersion contg. I (R1-R4 = Me, R5 = H, X = .alpha.-D-glucopyranosyl, n = m = 1) showed microchannel array passing time 25.2 s, vs. 37.8 s, for control.
ST erythrocyte deformation improvement chromanol glycoside; blood circulation improvement chromanol glycoside
IT **Antiarteriosclerotics**
(**antiatherosclerotics**; erythrocyte deformation-improving agents contg. chromanol glycosides)
IT Brain, disease
(cerebrovascular, sequelae, treatment; erythrocyte deformation-improving agents contg. chromanol glycosides)
IT Periodontium
(disease, treatment; erythrocyte deformation-improving agents contg. chromanol glycosides)
IT Circulation
(disorder, treatment; erythrocyte deformation-improving agents contg. chromanol glycosides)
IT Antihypertensives
Erythrocyte
(erythrocyte deformation-improving agents contg. chromanol glycosides)
IT Brain, disease
(infarction, sequelae, treatment; erythrocyte deformation-improving agents contg. chromanol glycosides)
IT Circulation
(peripheral, disorder, treatment; erythrocyte deformation-improving agents contg. chromanol glycosides)
IT Brain, disease
(stroke, sequelae, treatment; erythrocyte deformation-improving agents contg. chromanol glycosides)
IT **160455-95-8, 2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(erythrocyte deformation-improving agents contg. chromanol glycosides)
IT **160455-95-8, 2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(erythrocyte deformation-improving agents contg. chromanol glycosides)
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

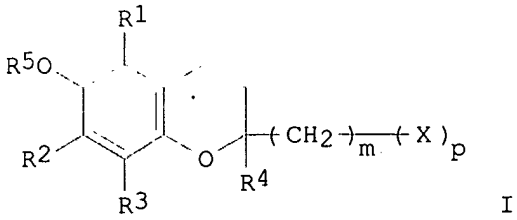
Absolute stereochemistry.



L42 ANSWER 4 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2002:244630 HCAPLUS
DN 136:284177
TI Sunscreens containing chromanol glycosides and UV absorbers
IN Sato, Saori; Ishida, Misaki; **Murase, Hironobu**
PA NOF Corporation, Japan; CCI Corp.
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K007-42
ICS A61K007-035; A61K007-06
CC 62-4 (Essential Oils and Cosmetics)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2002097127	A2	20020402	JP 2000-282637	20000918 <--
PRAI JP 2000-282637		20000918 <--		

OS MARPAT 136:284177
GI

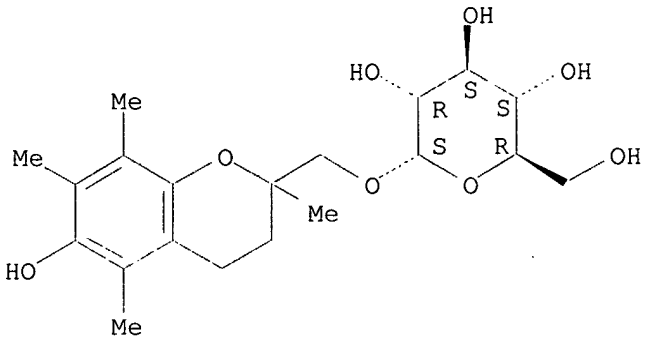


I

AB Sunscreens contain 0.001-20 wt.% chromanol glycosides I (R1-R4 = H, C1-6 alkyl; R5 = H, C1-6 alkyl, C1-6 acyl; X = monosaccharide or oligosaccharide residue; m = 0-6; p = 1-10) and 0.1-30 wt.% UV absorbers. The sunscreens show long-lasting UV blocking effect, water resistance, storage stability, etc. A sunscreen emulsion was prepd. from I (R1-R4 = Me, R5 = H, X = glucosyl, m = p = 1) (prepn. given) 1, Parsol 1789 0.7, oils 7, emulsifiers 1.8, other additives 11.5, and H2O to 100 wt.%.
ST sunscreen chromanol glycoside UV absorber
IT Sunscreens
UV stabilizers
(sunscreens contg. chromanol glycosides and UV absorbers)
IT 79907-49-6DP, glycosides **160455-95-8DP**, glucosides **160455-95-8P**
RL: BPN (Biosynthetic preparation); COS (Cosmetic use); BIOL (Biological

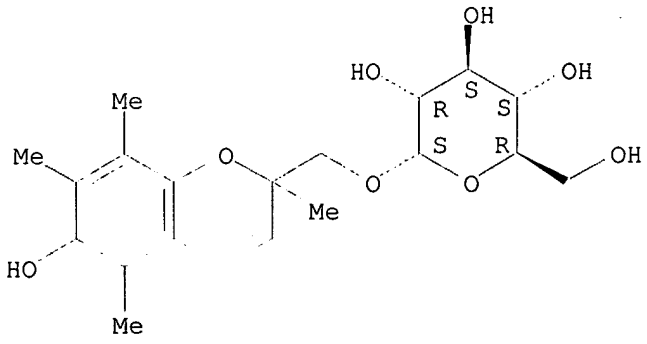
study); PREP (Preparation); USES (Uses)
(sunscreens contg. chromanol glycosides and UV absorbers)
IT 131-57-7, Uvinul M 40 5466-77-3, Parsol MCX 70356-09-1, Parsol 1789
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(sunscreens contg. chromanol glycosides and UV absorbers)
IT 10016-20-3, .alpha.-Cyclodextrin 79907-49-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(sunscreens contg. chromanol glycosides prepd. from)
IT **160455-95-8DP**, glucosides **160455-95-8P**
RL: BPN (Biosynthetic preparation); COS (Cosmetic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(sunscreens contg. chromanol glycosides and UV absorbers)
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

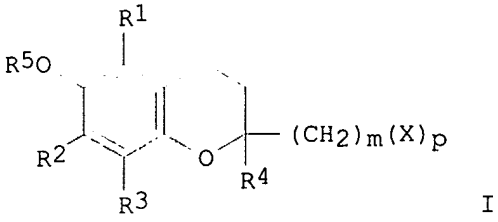


L42 ANSWER 5 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2002:244629 HCAPLUS
DN 136:299474
TI Sunscreens containing chromanol glycosides and UV scattering agents
IN Ishida, Misaki; Sato, Saori; **Murase, Hironoru**
PA NOF Corporation, Japan; CCC Corp.
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese

IC ICM A61K007-42
CC 62-4 (Essential Oils and Cosmetics)
FAN.CNT 1

	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE
PI	JP 2002097126	A2	20020402		JP 2000-282638	20000918 <--
PRAI	JP 2000-282638		20000918	<--		

OS MARPAT 136:299474
GI



I

AB Sunscreens contain 0.001-20 wt.% chromanol glycosides I (R1-R4 = H, C1-6 alkyl; R5 = H, C1-6 alkyl, C1-6 acyl; X = monosaccharide or oligosaccharide residue; m = 0-6; p = 1-10) and 0.1-30 wt.% UV scattering agents. The sunscreens show no stickiness, good durability, and are free from whitening after application. A bilayer sunscreen was prepd. from I (R1-R4 = Me, R5 = H, X = glucosyl, m = p = 1) (prepn. given) 1, MT 500SA (alumina/silica-treated TiO2 fine particle) 7, polyoxyethylene hydrogenated castor oil deriv. 0.1, EtOH 15, and H2O to 100 wt.%.

ST sunscreen chromanol glycoside UV scattering agent

IT Sunscreens
(sunscreens contg. chromanol glycosides and UV scattering agents)

IT 1314-13-2, Zinc oxide, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(MZ 500; sunscreens contg. chromanol glycosides and UV scattering agents)

IT 13463-67-7, Titanium oxide, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(SPP-M; sunscreens contg. chromanol glycosides and UV scattering agents)

IT 79907-49-6DP, glycosides **160455-95-8DP**, glucosides **160455-95-8P**
RL: BPN (Biosynthetic preparation); COS (Cosmetic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(sunscreens contg. chromanol glycosides and UV scattering agents)

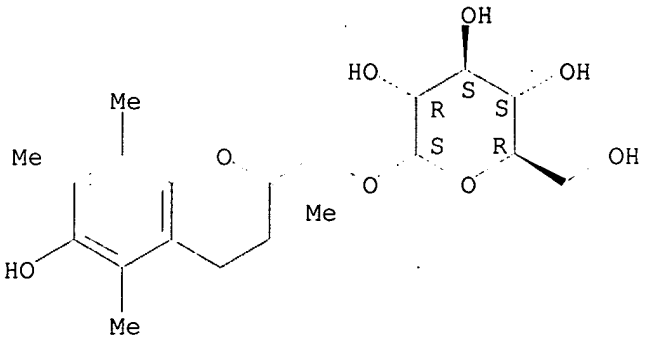
IT 406684-41-1, ZNO 350SI4
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(sunscreens contg. chromanol glycosides and UV scattering agents)

IT 9004-53-9, Pinedex 1 79907-49-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(sunscreens contg. chromanol glycosides prepd. from)

IT **160455-95-8DP**, glucosides **160455-95-8P**
RL: BPN (Biosynthetic preparation); COS (Cosmetic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(sunscreens contg. chromanol glycosides and UV scattering agents)

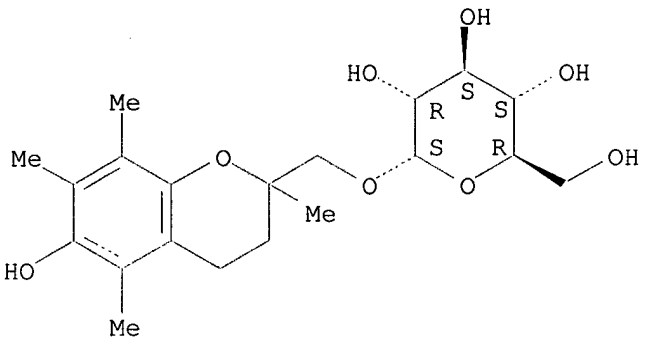
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

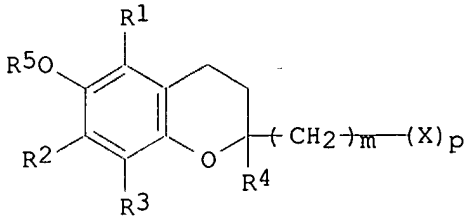
Absolute stereochemistry.



L42 ANSWER 6 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2002:129052 HCAPLUS
DN 136:189097
TI Skin cosmetics containing chromanol glycosides and oil-soluble antioxidants
IN Sato, Saori; Ishida, Misaki; Murase, Hiroyoshi
PA NOF Corporation, Japan; CCI Corp.
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K007-00
ICS A61K007-48
CC 62-4 (Essential Oils and Cosmetics)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002053422	A2	20020219	JP 2000-238434	20000807 <--
PRAI	JP 2000-238434		20000807 <--		

OS MARPAT 136:189097
GI



AB The cosmetics contain 0.001-20 wt.% chromanol glycosides I [R1-R4 = H, C1-6 alkyl; R5 = H, C1-6 alkyl, C1-6 acyl; X = (acyl-substituted) saccharide residue; m = 0-6; p = 1-10] and 0.001-10 wt.% oil-sol. antioxidants. The cosmetics are storage-stable and show skin-conditioning and antiwrinkle effect. An oil-in-water emulsion contg. I (R1-R4 = Me, R5 = H, X = glucose residue, m = p = 1) and d-.delta.-tocopherol was formulated.

ST skin cosmetic chromanol glycoside antioxidant; tocopherol chromanol glucoside skin cosmetic

IT Cosmetics
(conditioners; skin cosmetics contg. chromanol glycosides and oil-sol. antioxidants)

IT Antioxidants
(skin cosmetics contg. chromanol glycosides and oil-sol. antioxidants)

IT 79-81-2, Retinol palmitate 119-13-1 127-47-9, Retinol acetate 52225-20-4, dl-.alpha.-Tocopherol acetate 251562-63-7, dl-.delta.-Tocopherol
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(antioxidant; skin cosmetics contg. chromanol glycosides and oil-sol. antioxidants)

IT **160455-95-8P 362480-96-4P 362480-97-5P**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(skin cosmetics contg. chromanol glycosides and oil-sol. antioxidants)

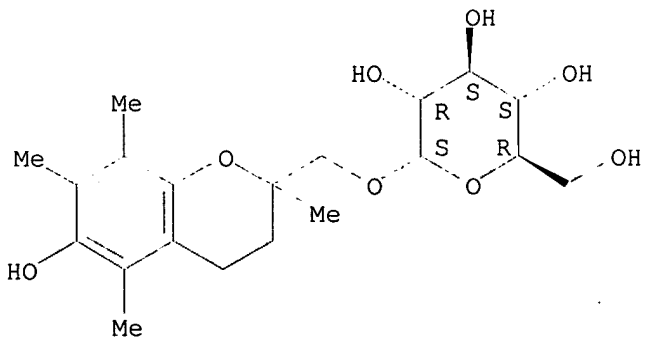
IT 9004-53-9, Pinedex 1 79907-49-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(skin cosmetics contg. chromanol glycosides and oil-sol. antioxidants)

IT **160455-95-8P 362480-96-4P 362480-97-5P**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(skin cosmetics contg. chromanol glycosides and oil-sol. antioxidants)

RN 160455-95-8 HCAPLUS

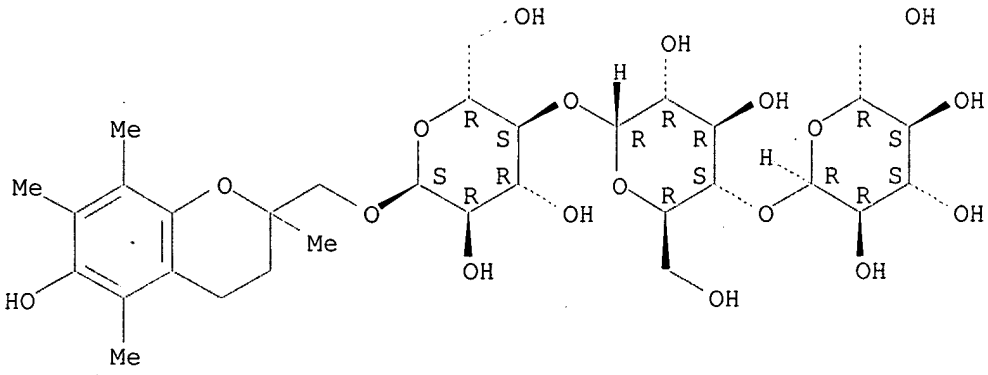
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 362480-96-4 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

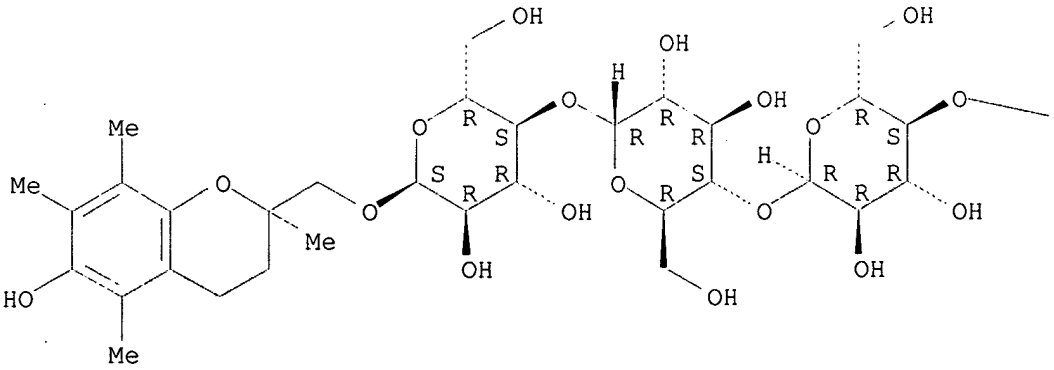
Absolute stereochemistry.



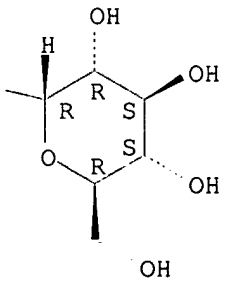
RN 362480-97-5 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



L42 ANSWER 7 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2002:18308 HCAPLUS
DN 136:212827
TI Effect of a water soluble derivative of .alpha.-tocopherol on radiation response of Saccharomyces cerevisiae
AU Singh, Rakesh K.; Verma, Naresh C.; Kagiya, V. T.
CS Radiation Biology Division, Bhabha Atomic Research Centre, Mumbai, 400 085, India
SO Indian Journal of Biochemistry & Biophysics (2001), 38(6), 399-405
CODEN: IJBBBQ; ISSN: 0301-1208
PB National Institute of Science Communication
DT Journal
LA English
CC 8-3 (Radiation Biochemistry)
AB The radioprotection conferred by a highly water sol. glucose deriv. of .alpha.-tocopherol, namely, **2-(.alpha.-D-glucopyranosyl) methyl-2,5,7,8-tetramethylchroman-6-ol** (TMG) in Saccharomyces cerevisiae was studied. Cells grown in std. YEPD-agar medium and irradiated in the presence of TMG showed a concn. dependent higher survival up to 10 mM of TMG in comparison to cells irradiated in distd. water. Treatment of TMG to cells given either before or immediately after irradn. but not during irradn., had no effect on their radiation response, S. cerevisiae strain LP1383 (rad52) which is defective in recombination repair showed enhanced radioresistance only when subjected to irradn. in presence of TMG. Cells of rad52 strain grown in the medium contg. TMG showed a radiation response similar to that of cells grown in the medium without TMG. The nature of TMG dependent enhanced radioresistance was studied by scoring the mutations in the strain D-7, which behaved like wild type strain in complete medium, at trp and ilv loci. Our study indicated that TMG confers radioresistance in S. cerevisiae possibly by two mechanisms viz. (i), by eliminating radiation induced reactive free radicals when the irradn. is carried out in the presence of TMG and (ii), by activating an error - prone repair process involving RAD52 gene, when the cells are grown in the medium contg. TMG.
ST tocopherol deriv radioprotection Saccharomyces RAD52 gene
IT Gene, microbial
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(RAD52; effect of .alpha.-tocopherol deriv. on radiation response of Saccharomyces cerevisiae)
IT Radioprotectants
Saccharomyces cerevisiae
(effect of .alpha.-tocopherol deriv. on radiation response of Saccharomyces cerevisiae)
IT Gamma ray
(irradn.; effect of .alpha.-tocopherol deriv. on radiation response of Saccharomyces cerevisiae)
IT **160455-95-8, 2-(.alpha.-D-Glucopyranosyl) methyl-2,5,7,8-tetramethylchroman-6-ol**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(effect of .alpha.-tocopherol deriv. on radiation response of Saccharomyces cerevisiae)
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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(2) Chow, C; Free Rad Biol Med 1991, V11, P215 HCAPLUS
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(15) Paranich, A; Radiobiologia 1992, V32, P743 HCAPLUS
(16) Radner, B; Cancer Lett 1986, V32, P25 HCAPLUS
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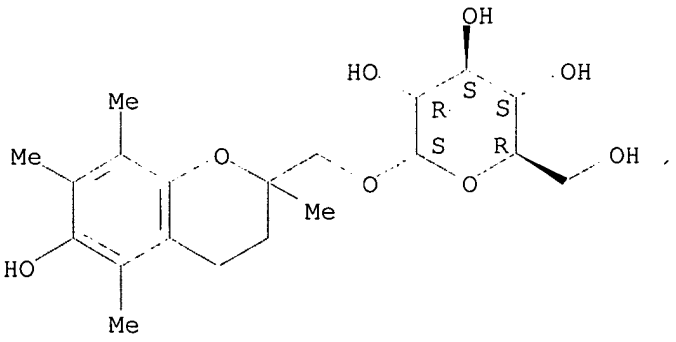
(21) Srinivasan, V; Int J Radiat Oncol Biol Phys 1992, V23, P841 HCAPLUS
(22) Sugiyama, M; Photochem Photobiol 1992, V56, P31 HCAPLUS
(23) Zimmerman, F; Mutat Res 1975, V28, P381

IT **160455-95-8, 2-(.alpha.-D-Glucopyranosyl) methyl-2,5,7,8-tetramethylchroman-6-ol**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(effect of .alpha.-tocopherol deriv. on radiation response of Saccharomyces cerevisiae)

RN 160455-95-8 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

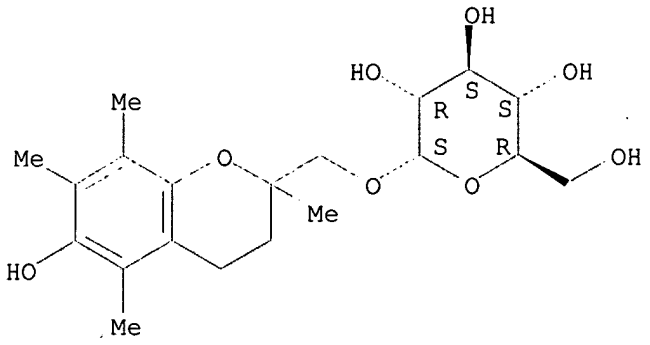


L42 ANSWER 8 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:874356 HCAPLUS
DN 136:10935
TI Cosmetics containing chromanol glycosides and anti-inflammatories
IN Ishida, Misaki; Sato, Saori; Murase, Hiroyoshi
PA NOF Corporation, Japan; CCI Corp.
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K007-48
ICS A61K007-00; A61K031-015; A61K031-19; A61K031-4166; A61K031-704; A61K031-7048; A61K045-00; A61P017-16; A61P029-00; C07H015-256; C07H015-26; C07H017-06
CC 62-4 (Essential Oils and Cosmetics)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

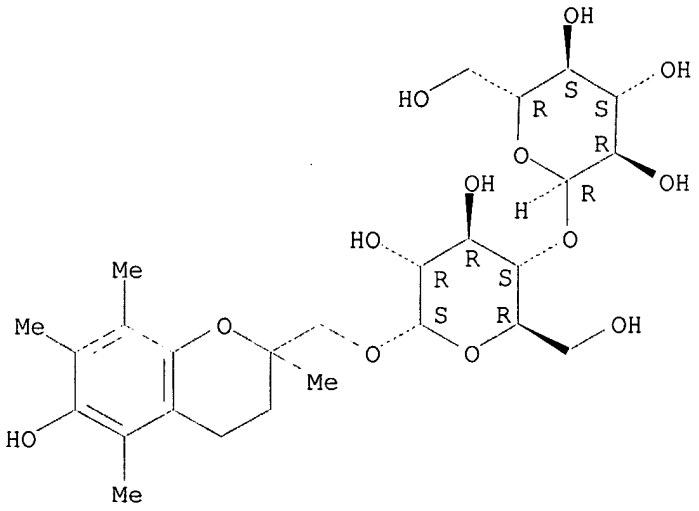
PI JP 2001335456 A2 20011204 JP 2000-152087 20000523 <--
PRAI JP 2000-152087 20000523 <--
OS MARPAT 136:10935
AB This invention relates to antiwrinkle, skin-moisturizing cosmetics comprising (1) 0.001-20 % chromanol glycosides and (2) 0.01-10 % anti-inflammatories selected from the group consisting of glycyrrhizinic acid, glycyrrhetinic acid, azulene, allantoin, and derivs. thereof. Chromanol glucosides were prepd. by treating 2-hydroxymethyl-2,5,7,8-tetramethylchroman-6-ol with dextrin in the presence of cyclomaltodextrin glucanotransferase. A cream was formulated contg. 0.1 % chromanol monoglucoside and 0.1 % dipotassium glycyrrhizinate with other conventional ingredients.
ST antiwrinkle moisturizer chromanol glycoside antiinflammatory
IT Anti-inflammatory agents
(cosmetics contg. chromanol glycosides and anti-inflammatories)
IT Cosmetics
(moisturizers; cosmetics contg. chromanol glycosides and anti-inflammatories)
IT Cosmetics
(wrinkle-preventing; cosmetics contg. chromanol glycosides and anti-inflammatories)
IT 97-59-6, Allantoin 275-51-4, Azulene 471-53-4, Glycyrrhetinic acid 1405-86-3, Glycyrrhizinic acid 53956-04-0, Ammonium glycyrrhizinate 68797-35-3, Dipotassium glycyrrhizinate 106388-01-6
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(cosmetics contg. chromanol glycosides and anti-inflammatories)
IT **160455-95-8P 160455-96-9P 362480-96-4P 362480-97-5P 362480-98-6P 362481-00-3P 364783-92-6P**
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of chromanol glycosides for cosmetic use)
IT 9030-09-5, Cyclomaltodextrin glucanotransferase
RL: CAT (Catalyst use); USES (Uses)
(prepn. of chromanol glycosides for cosmetic use)
IT 9004-53-9, Dextrin 79907-49-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of chromanol glycosides for cosmetic use)
IT **160455-95-8P 160455-96-9P 362480-96-4P 362480-97-5P 362480-98-6P 362481-00-3P 364783-92-6P**
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of chromanol glycosides for cosmetic use)
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



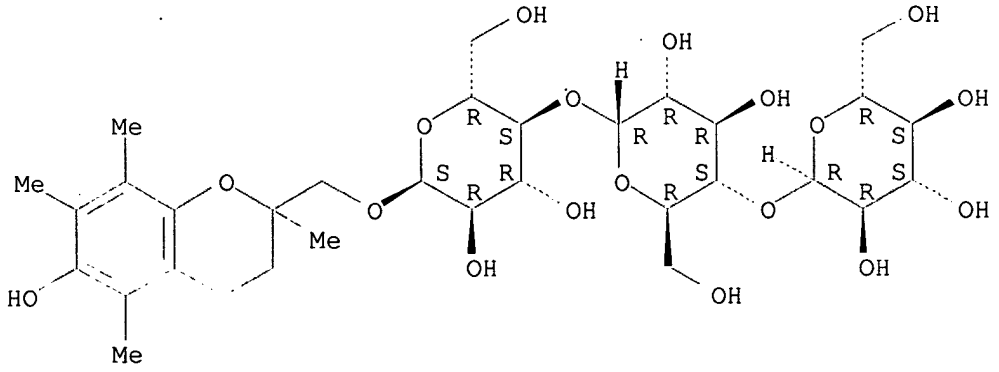
RN 160455-96-9 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl 4-O-.alpha.-D-glucopyranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 362480-96-4 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

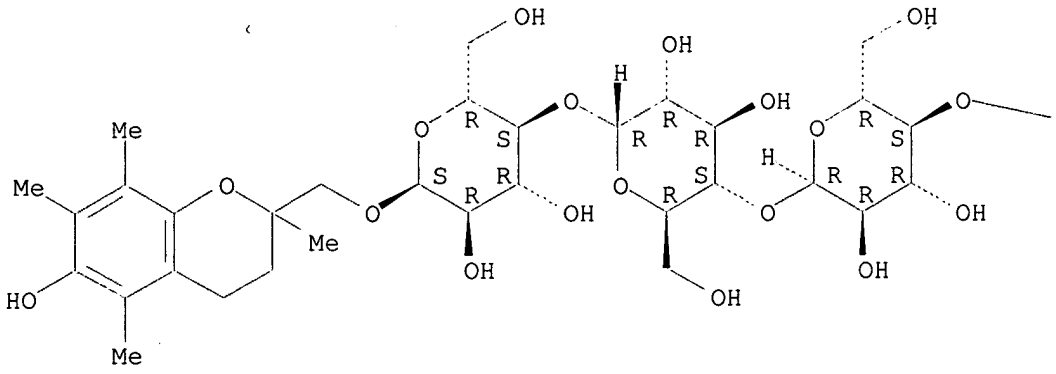
Absolute stereochemistry.



RN 362480-97-5 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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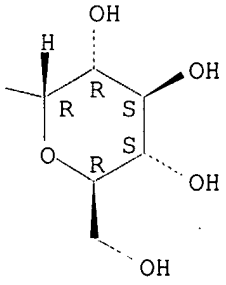
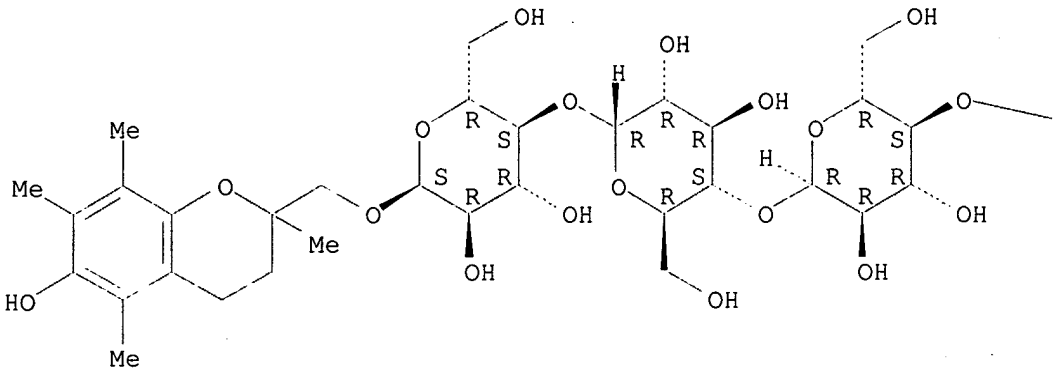


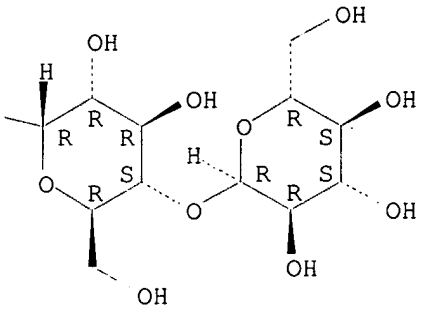
RN 362480-98-6 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



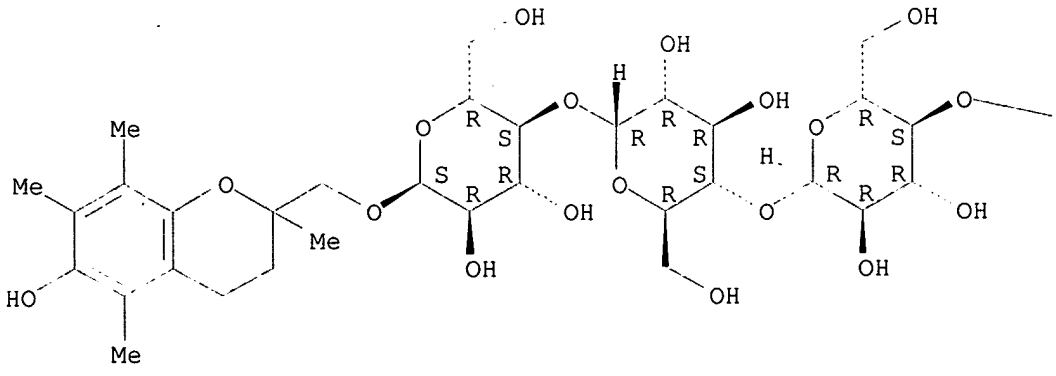
PAGE 1-B



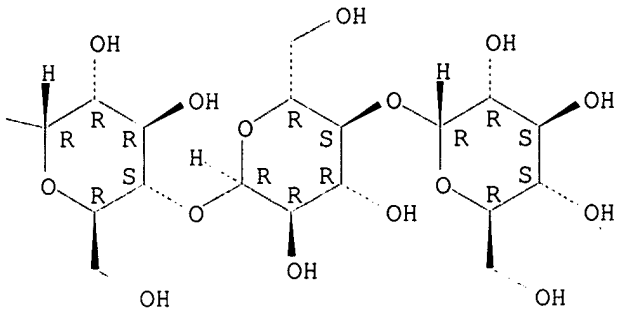
RN 362481-00-3 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



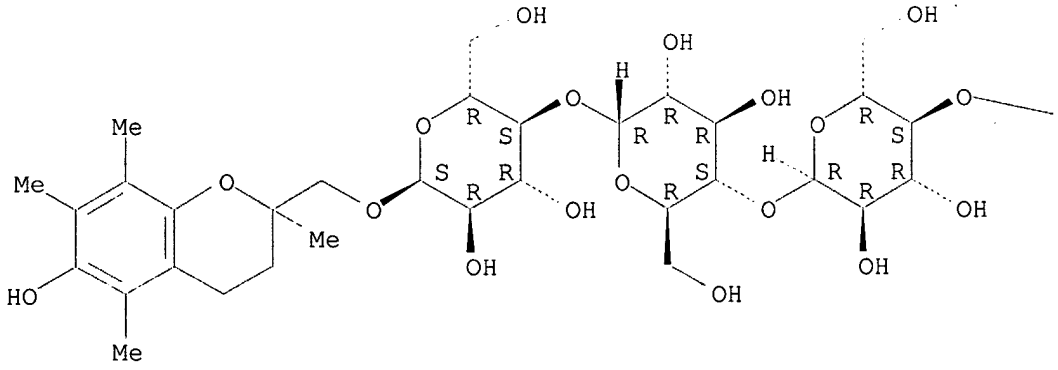
PAGE 1-B



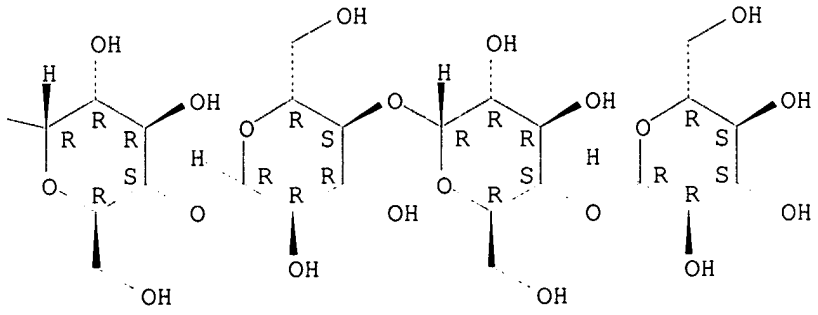
RN 364783-92-6 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



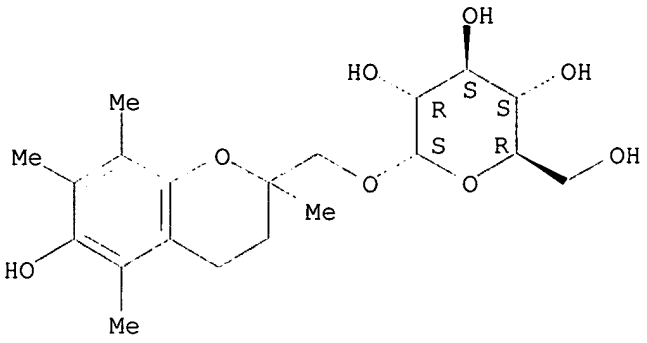
L42 ANSWER 9 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:873186 HCAPLUS
DN 136:10925

TI Bath compositions containing glycosides of chromanol derivatives and antiinflammatory agents
IN Ishida, Misaki; Sato, Saori; **Murase, Hironobu**
PA NOF Corporation, Japan; CCI Corp.
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K007-50
ICS A61K031-015; A61K031-19; A61K031-4166; A61K031-7016; A61K045-00; A61P029-00
CC 62-4 (Essential Oils and Cosmetics)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2001335466	A2	20011204	JP 2000-152086	20000523 <--
PRAI JP 2000-152086		20000523 <--		

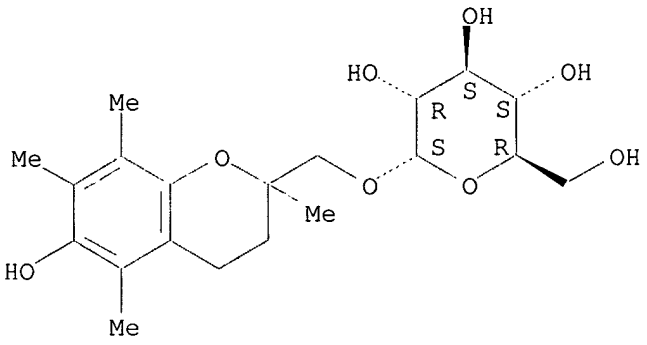
OS MARPAT 136:10925
AB The invention relates to a bath compn. having rough skin-improving effects, wherein the compn. contains a glycoside of chromanol deriv. 0.001-20 and an antiinflammatory agent 0.01-10 %. A compd. 2-hydroxymethyl-2,5,7,8-tetramethylchroman-6-ol glucoside was prepd. and combined at 1 % with guaiazulene 0.5 and other ingredients q.s. to 100 % to obtain a bath compn.
ST chromanol deriv glycoside antiinflammatory agent bath compn
IT Anti-inflammatory agents
Bath preparations
(bath compns. contg. glycosides of chromanol derivs. and antiinflammatory agents)
IT 489-84-9, Guaiazulene 53956-04-0, Monoammonium glycyrrhizinate 135459-36-8
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(bath compns. contg. glycosides of chromanol derivs. and antiinflammatory agents)
IT **160455-95-8DP**, glucosyl repeating **160455-95-8P**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(bath compns. contg. glycosides of chromanol derivs. and antiinflammatory agents)
IT 9004-53-9, Pinedex 1 79907-49-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(bath compns. contg. glycosides of chromanol derivs. and antiinflammatory agents)
IT **160455-95-8DP**, glucosyl repeating **160455-95-8P**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(bath compns. contg. glycosides of chromanol derivs. and antiinflammatory agents)
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 10 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:738287 HCAPLUS
DN 135:293712
TI Skin-lightening cosmetics containing chromanol glycosides and other active agents
IN Ishida, Misaki; Sato, Saori; **Murase, Hironobu**
PA NOF Corporation, Japan; CCI Corp.
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K007-48
ICS A61K007-00
CC 62-4 (Essential Oils and Cosmetics)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2001278774	A2	20011010	JP 2000-96833	20000331 <--
PRAI JP 2000-96833		20000331 <--		

OS MARPAT 135:293712
AB This invention relates to a skin-lightening cosmetic compn. comprising (1) 0.001-20 % chromanol glycosides and (2) .gtoreq. 1 agent selected from the group consisting of ascorbic acid, placenta exts., kojic acid, ellagic acid, hydroquinone, retinol, tocopherol, glucosamine, azelaic acid, pyridoxine, cinnamic acid, and derivs. thereof. The compns. also moisturize the skin and provide anti-wrinkle effects. Chromanol glucosides were prepd. by treating 2-hydroxymethyl-2,5,7,8-

tetramethylchroman-6-ol with dextrin in the presence of cyclomaltodextrin glucanotransferase. A cream contained chromanol monoglucoside 3, kojic acid 1, tocopherol acetate 0.05, cetanol 3, decamethylcyclopentasiloxane 3, Na sulfite 0.05, other additives q.s., and purified water balance to 100 %.

ST skin lightening moisturizing cosmetic chromanol glycoside

IT Antioxidants
(skin-lightening cosmetics contg. chromanol glycosides and other active agents)

IT Placental hormones
Tocopherols
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(skin-lightening cosmetics contg. chromanol glycosides and other active agents)

IT Cosmetics
(skin-lightening; skin-lightening cosmetics contg. chromanol glycosides and other active agents)

IT **160455-95-8P 160455-96-9P 362480-96-4P**
362480-97-5P 362480-98-6P 362481-00-3P
364783-92-6P 364783-93-7P
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of chromanol glycosides for skin-lightening cosmetics)

IT 9030-09-5, Cyclomaltodextrin glucanotransferase
RL: CAT (Catalyst use); USES (Uses)
(prepn. of chromanol glycosides for skin-lightening cosmetics)

IT 9004-53-9, Dextrin 79907-49-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of chromanol glycosides for skin-lightening cosmetics)

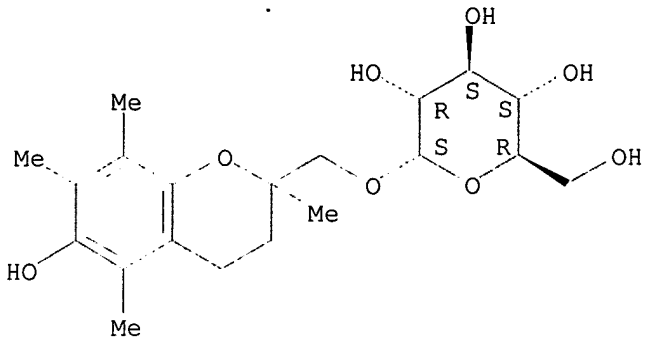
IT 50-81-7, Ascorbic acid, biological studies 58-95-7, Tocopherol acetate 65-23-6, Pyridoxine 68-26-8, Retinol 123-31-9, Hydroquinone, biological studies 123-99-9, Azelaic acid, biological studies 476-66-4, Ellagic acid 497-76-7, Arbutin 501-30-4, Kojic acid 621-82-9, Cinnamic acid, biological studies 3416-24-8, Glucosamine 108910-78-7, Magnesium ascorbyl phosphate
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(skin-lightening cosmetics contg. chromanol glycosides and other active agents)

IT **160455-95-8P 160455-96-9P 362480-96-4P**
362480-97-5P 362480-98-6P 362481-00-3P
364783-92-6P 364783-93-7P
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of chromanol glycosides for skin-lightening cosmetics)

RN 160455-95-8 HCAPLUS

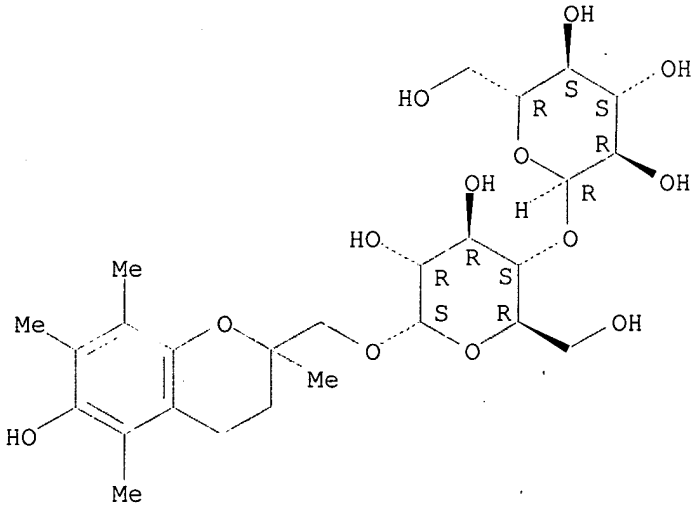
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



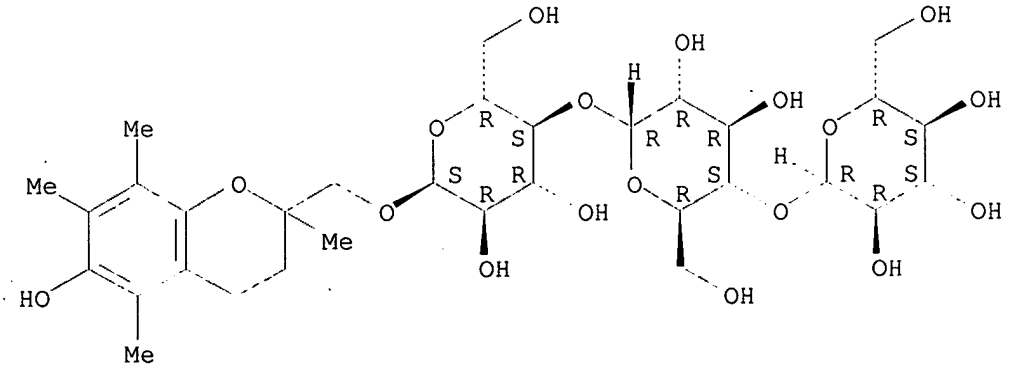
RN 160455-96-9 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl 4-O-.alpha.-D-glucopyranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 362480-96-4 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

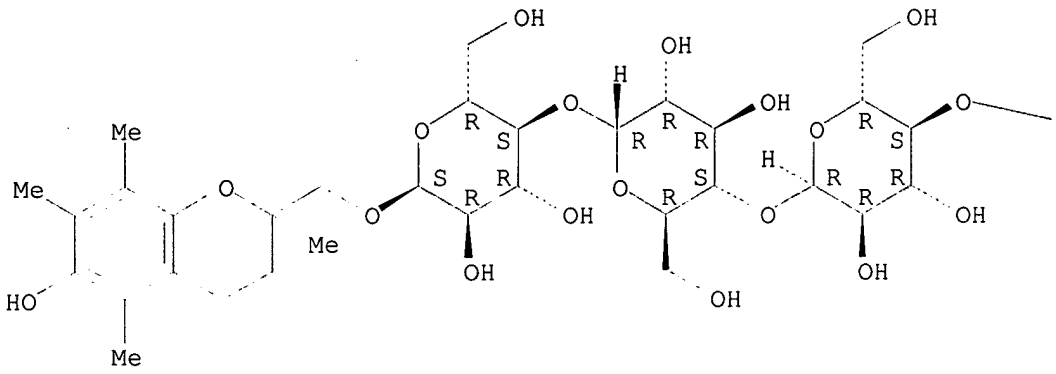
Absolute stereochemistry.



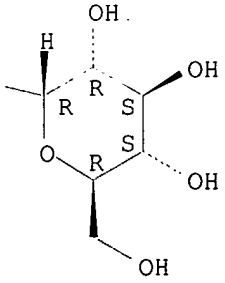
RN 362480-97-5 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



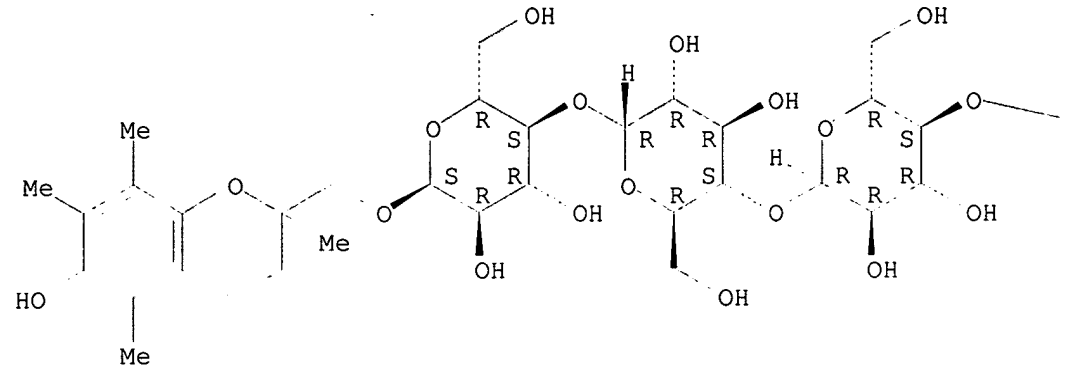
PAGE 1-B



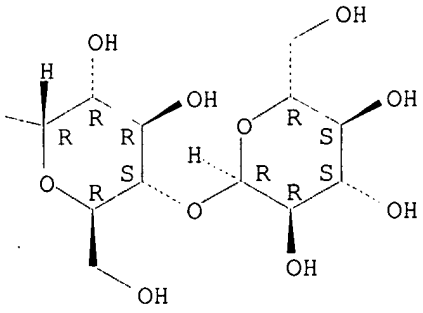
RN 362480-98-6 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



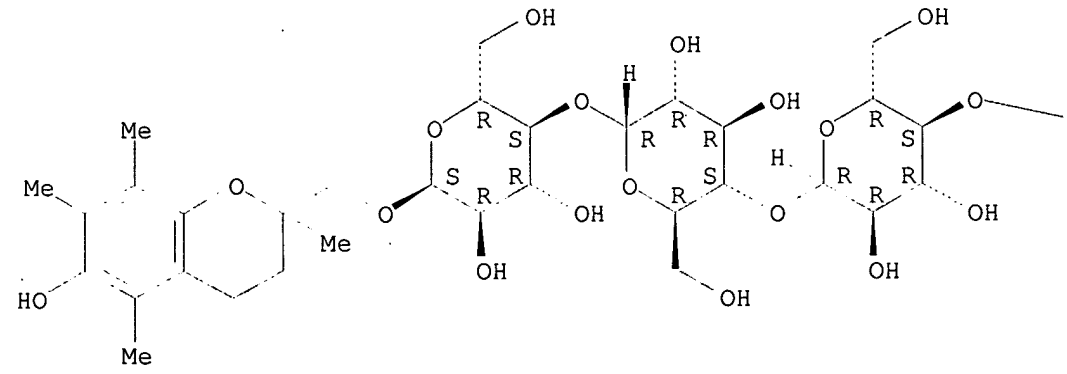
PAGE 1-B



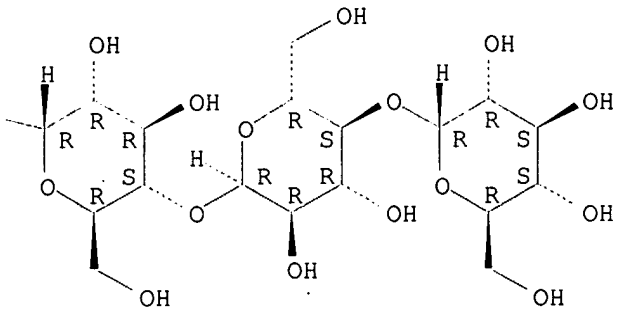
RN 362481-00-3 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



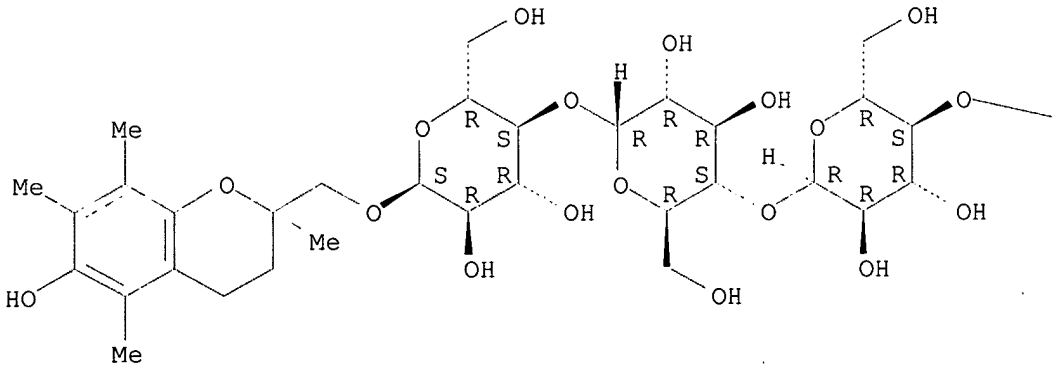
PAGE 1-B



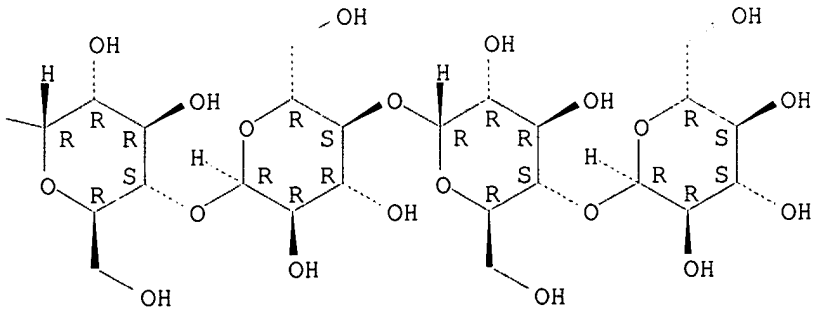
RN 364783-92-6 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

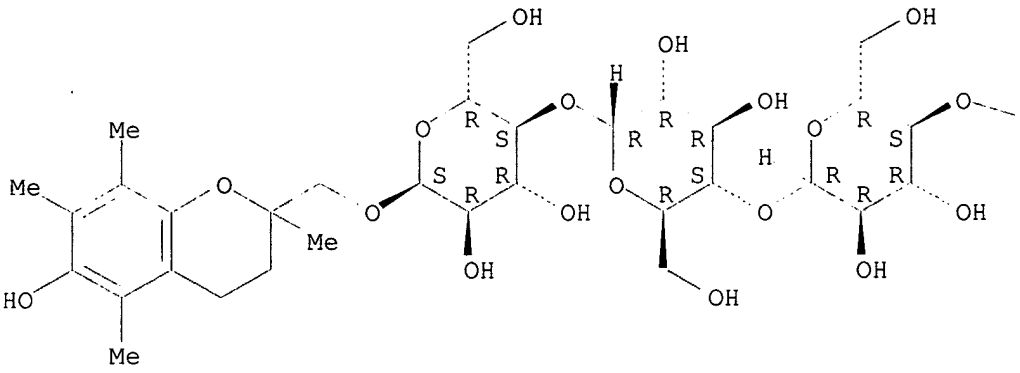


RN 364783-93-7 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-

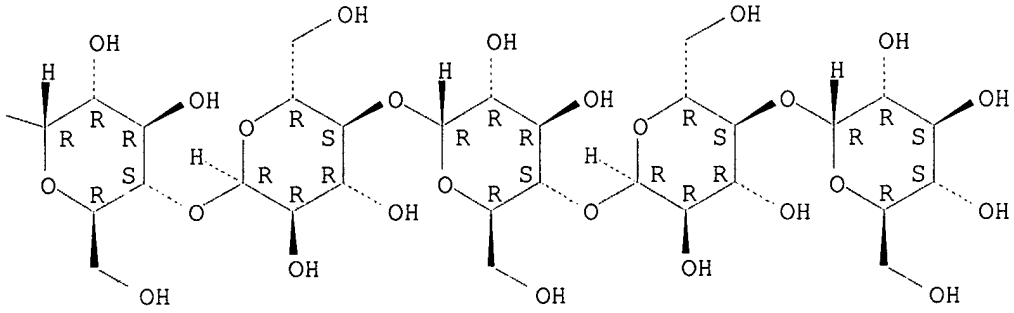
.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



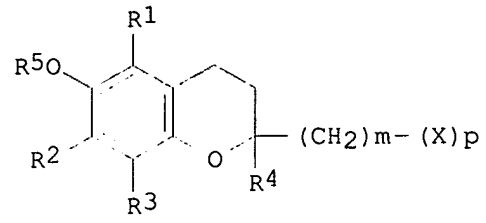
PAGE 1-B



L42 ANSWER 11 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:707351 HCAPLUS
DN 135:274586
TI Bar soap compositions
IN Ishida, Misaki; Sato, Saori; **Murase, Hironobu**
PA NOF Corporation, Japan; CCI Corp.
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C11D009-26
ICS C11D001-04
CC 46-2 (Surface Active Agents and Detergents)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001262192	A2	20010926	JP 2000-83022	20000323 <--
PRAI	JP 2000-83022		20000323 <--		

OS MARPAT 135:274586
GI



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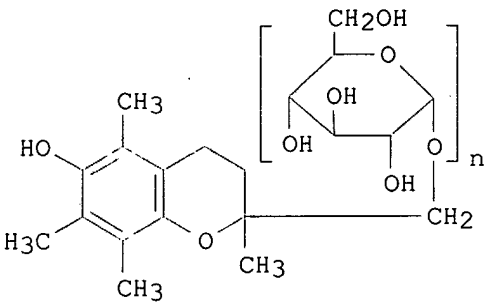


II

AB Title compns. comprise 0.001-20% chromanol glycosides represented by (I) wherein R1-4 = independently H or C1-6 alkyl, R5 = H, C1-6 alkyl, or C1-6 acyl, and X - monosaccharide or oligosaccharide residues, m = integer 0-6, and p = integer 1-10 and 30-90% higher fatty acid salts. The soap produces creamy foams and dissolves well. Thus, 7.5 g Pinedex 1 dissolved in 90 mL 0.5 mM disodium ethylenediaminetetraacetate (pH 5.5) and 8% 2-hydroxymethyl-2,5,7,8-tetramethyl chroman-6-ol dissolved in dimethylsulfoxide gave (II). The chromanol glycoside and the fatty acid salt were agitated to give a bar soap.

ST bar soap contg chromanol glycoside fatty acid salt

IT Soaps
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(bars; bar soap)

IT Glycosides
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(chromanol; bar soap)

IT Tallow
RL: TEM (Technical or engineered material use); USES (Uses)
(higher fatty acid salts component; bar soap)

IT Fatty acids, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(long-chain, salts, PNV 5; bar soap)

IT Fatty acids, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(palm-oil, higher fatty acid salts component; bar soap)

IT **160455-95-8P 160455-96-9P 362480-96-4P**
362480-97-5P 362480-98-6P 362481-00-3P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(bar soap)

IT 9004-53-9, Pinedex 1 79907-49-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(bar soap)

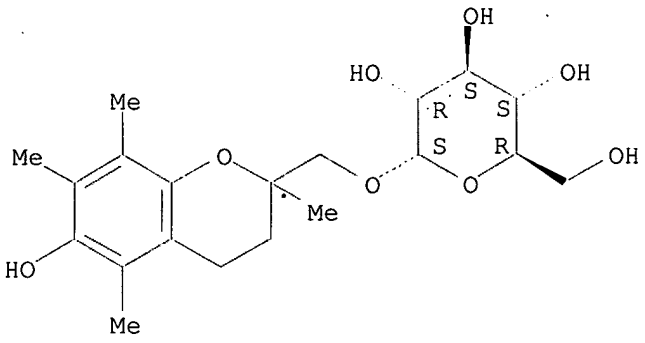
IT 57-10-3D, Palmitic acid, derivs. 57-11-4D, Stearic acid, derivs. 143-07-7D, Lauric acid, derivs. 544-63-8D, Myristic acid, derivs.
RL: TEM (Technical or engineered material use); USES (Uses)
(higher fatty acid salts component; bar soap)

IT **160455-95-8P 160455-96-9P 362480-96-4P**

362480-97-5P 362480-98-6P 362481-00-3P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(bar soap)

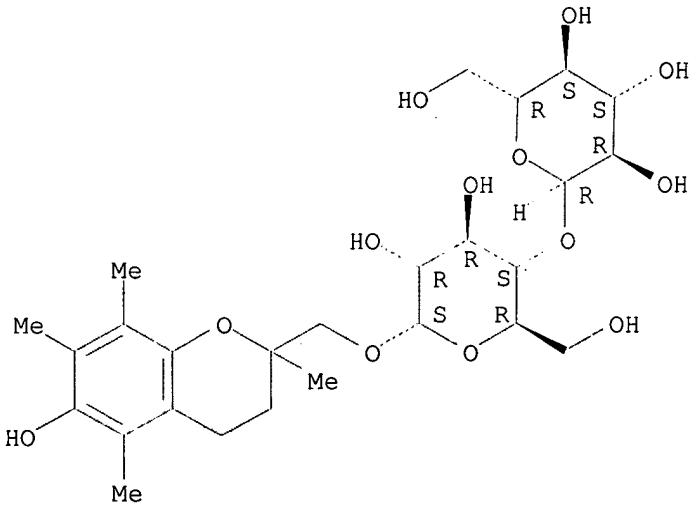
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



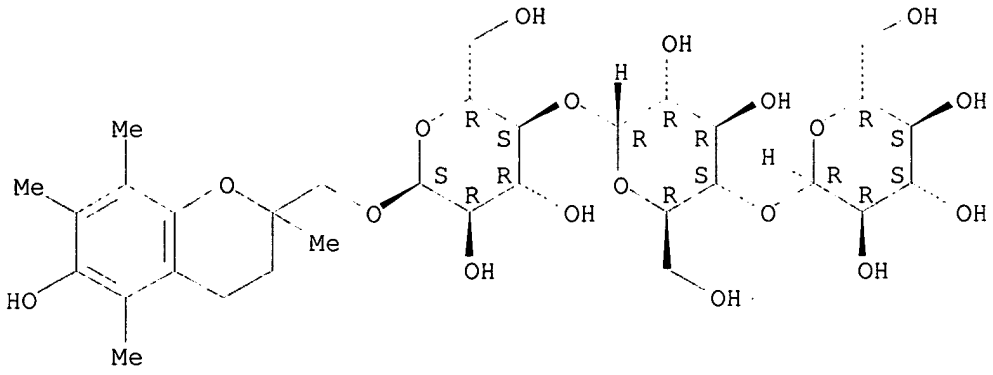
RN 160455-96-9 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl 4-O-.alpha.-D-glucopyranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 362480-96-4 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

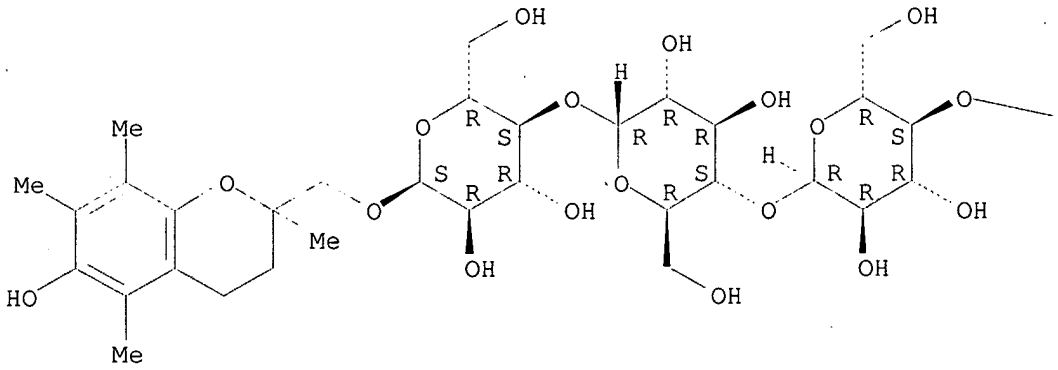
Absolute stereochemistry.



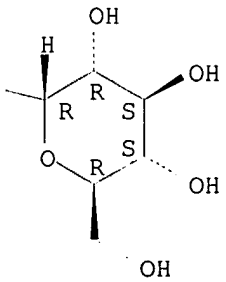
RN 362480-97-5 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



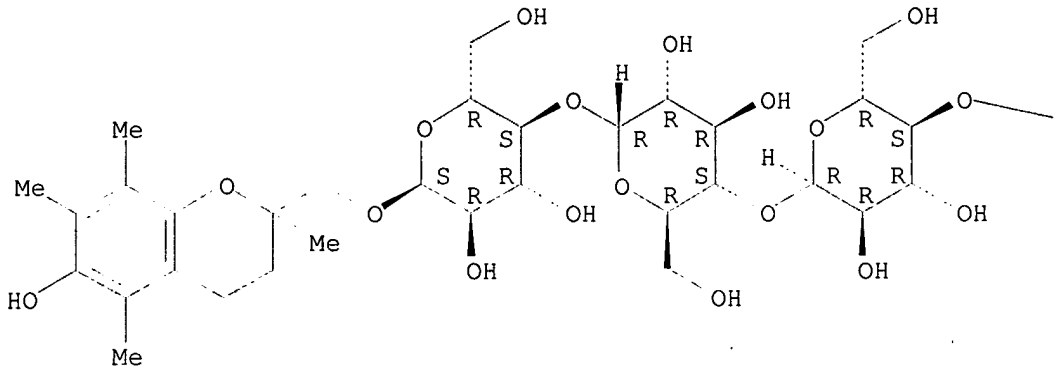
PAGE 1-B



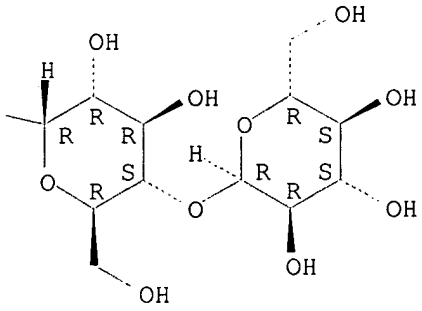
RN 362480-98-6 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



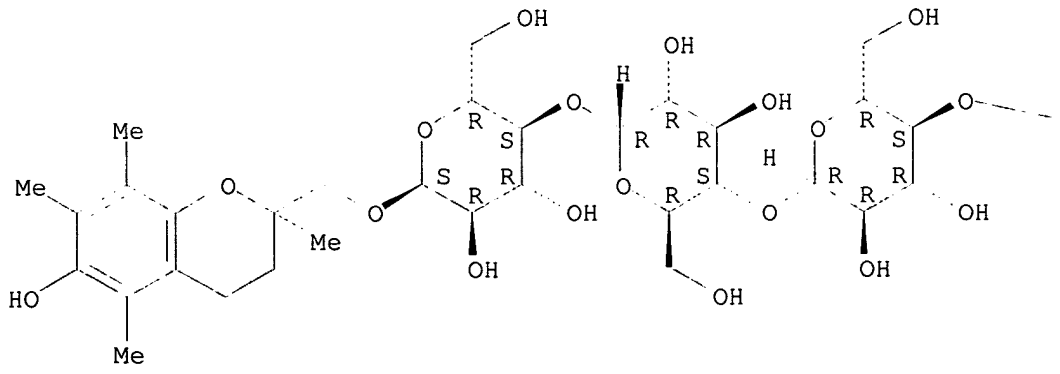
PAGE 1-B



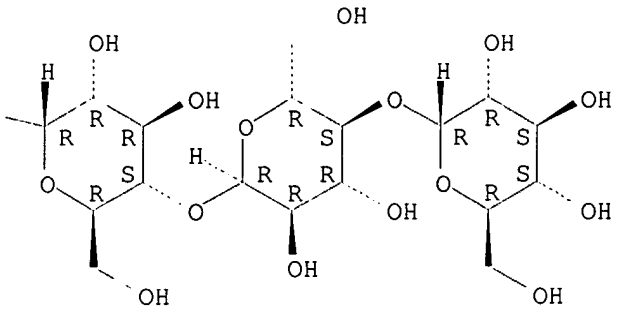
RN 362481-00-3 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



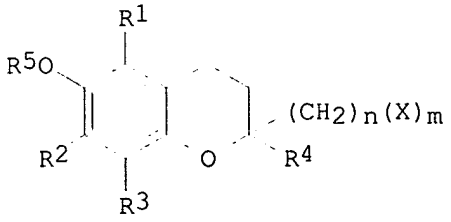
PAGE 1-B



L42 ANSWER 12 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:704683 HCAPLUS
DN 135:257369
TI Vitamin E derivative chromanol glycosides as water soluble matrix metalloprotease production cancer metastasis inhibitor
IN Fujii, Toshiaki; **Murase, Hironobu**; Kunieda, Tsutomu
PA CCI Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K031-7048
ICS A61P035-04; A61P043-00; C07H015-26
CC 30-20 (Terpenes and Terpenoids)
Section cross-reference(s): 1, 4, 7, 63
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2001261563	A2	20010926	JP 2000-73790	20000316 <--
PRAI JP 2000-73790		20000316 <--		

OS MARPAT 135:257369
GI

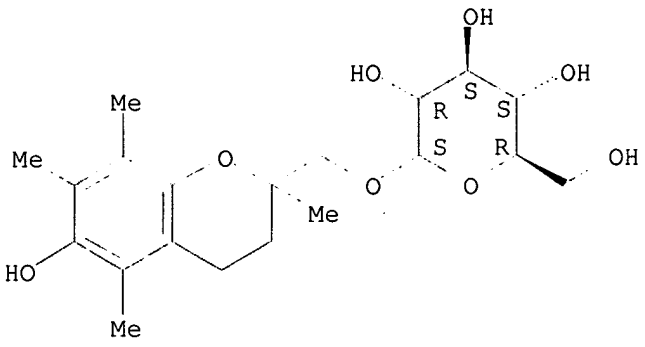


I

AB 6-Chromanol glycosides of general formula I (R1-R4 = H, lower alkyl; R5 = H, lower alkyl, lower acyl; X = monosaccharide or oligosaccharide whose H atom of OH group may be substituted with lower alkyl or lower acyl; n = 0-6; m = 1-6), useful as matrix metalloprotease prodn. inhibitor, and water sol. cancer metastasis inhibitor, are disclosed. Inhibition of gelatinase prodn. (35%) and infiltration of human fibrosarcoma derived HT-1080 cells (24%) by **2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol** (TMG), was detected. Acute toxicol. studies and prepn. of powder, granule,

tablet, capsule, and injection formulations, are also described.
ST chromanol glycoside matrix metalloprotease cancer metastasis inhibitor; vitamin E deriv matrix metalloprotease cancer metastasis inhibitor
IT Animal cell line
(HT-1080, cancer metastasis inhibition in; vitamin E deriv. chromanol glycosides as water sol. matrix metalloprotease prodn. cancer metastasis inhibitor)
IT Drug delivery systems
(capsules; vitamin E deriv. chromanol glycosides as water sol. matrix metalloprotease prodn. cancer metastasis inhibitor)
IT Glycosides
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(chromanol; vitamin E deriv. chromanol glycosides as water sol. matrix metalloprotease prodn. cancer metastasis inhibitor)
IT Drug delivery systems
(granules; vitamin E deriv. chromanol glycosides as water sol. matrix metalloprotease prodn. cancer metastasis inhibitor)
IT Drug delivery systems
(injections; vitamin E deriv. chromanol glycosides as water sol. matrix metalloprotease prodn. cancer metastasis inhibitor)
IT Neoplasm
(metastasis, inhibitor; vitamin E deriv. chromanol glycosides as water sol. matrix metalloprotease prodn. cancer metastasis inhibitor)
IT Drug delivery systems
(powders; vitamin E deriv. chromanol glycosides as water sol. matrix metalloprotease prodn. cancer metastasis inhibitor)
IT Drug delivery systems
(tablets; vitamin E deriv. chromanol glycosides as water sol. matrix metalloprotease prodn. cancer metastasis inhibitor)
IT 5614-78-8D, 6-Chromanol, glycosides **160455-95-8**, **2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vitamin E deriv. chromanol glycosides as water sol. matrix metalloprotease prodn. cancer metastasis inhibitor)
IT 9040-48-6, Gelatinase 141907-41-7
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(vitamin E deriv. chromanol glycosides as water sol. matrix metalloprotease prodn. cancer metastasis inhibitor)
IT **160455-95-8**, **2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vitamin E deriv. chromanol glycosides as water sol. matrix metalloprotease prodn. cancer metastasis inhibitor)
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

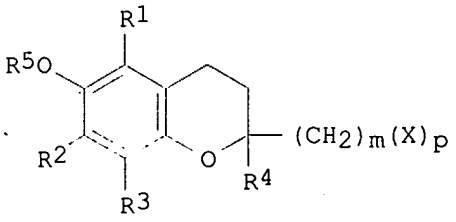
Absolute stereochemistry.



L42 ANSWER 13 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:683988 HCAPLUS
DN 135:247017
TI Skin-moisturizing, -conditioning, and antiwrinkle cosmetics containing chromanol glycosides
IN Ishida, Misaki; Sato, Saori; **Murase, Hironobu**
PA NOF Corporation, Japan; CCI Corp.
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K007-48
ICS A61K007-00
CC 62-4 (Essential Oils and Cosmetics)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2001253816	A2	20010918	JP 2000-68084	20000313 <--
PRAI JP 2000-68084		20000313 <--		

OS MARPAT 135:247017
GI

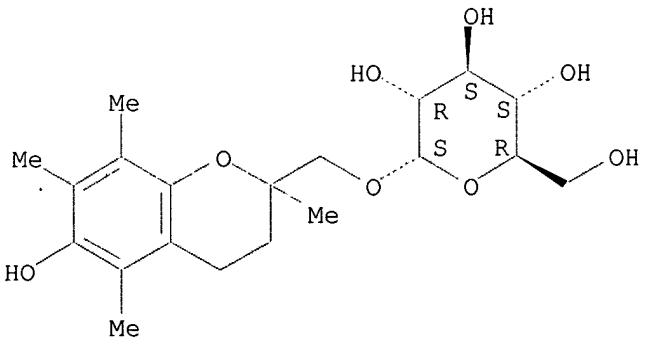


I

AB The cosmetics contain 0.00005-2 wt.% Akebia quinata and/or Astragalus sinicus exts. and 0.001-20 wt.% chromanol glycosides I [R1-R4 = H, C1-6 alkyl; R5 = H, C1-6 alkyl, C1-6 acyl; X = (C1-18 alkyl- or C1-18 acyl-substituted) monosaccharide residue, oligosaccharide residue; m = 0-6; p = 1-10]. The cosmetics are nonsticky and show good storage stability.
ST cosmetic chromanol glycoside Akebia Astragalus ext; moisturizer conditioner antiwrinkle cosmetic chromanol glycoside
IT Cosmetics
(conditioners; cosmetics contg. chromanol glycosides and Akebia quinata and/or Astragalus sinicus exts.)
IT Glycosides
RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified);

BIOL (Biological study); PREP (Preparation); USES (Uses)
(cosmetics contg. chromanol glycosides and Akebia quinata and/or Astragalus sinicus exts.)
IT Akebia quinata
Astragalus sinicus
(exts.; cosmetics contg. chromanol glycosides and Akebia quinata and/or Astragalus sinicus exts.)
IT Cosmetics
(moisturizers; cosmetics contg. chromanol glycosides and Akebia quinata and/or Astragalus sinicus exts.)
IT Cosmetics
(wrinkle-preventing; cosmetics contg. chromanol glycosides and Akebia quinata and/or Astragalus sinicus exts.)
IT 79907-49-6DP, glycosides **160455-95-8P**
RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(cosmetics contg. chromanol glycosides and Akebia quinata and/or Astragalus sinicus exts.)
IT 9004-53-9, Pinedex 1 79907-49-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(cosmetics contg. chromanol glycosides and Akebia quinata and/or Astragalus sinicus exts.)
IT **160455-95-8P**
RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(cosmetics contg. chromanol glycosides and Akebia quinata and/or Astragalus sinicus exts.)
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

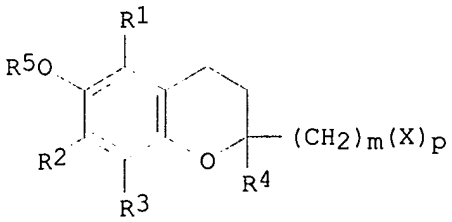


L42 ANSWER 14 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:681385 HCAPLUS
DN 135:247015
TI Skin-moisturizing, -conditioning, and antiwrinkle cosmetics containing chromanol glycosides
IN Ishida, Misaki; Sato, Saori; **Murase, Hironobu**
PA NOF Corporation, Japan; CCI Corp.
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K007-48
ICS A61K007-00
CC 62-4 (Essential Oils and Cosmetics)
FAN.CNT 1

	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE
PI	JP 2001253815	A2	20010918		JP 2000-68083	20000313 <--
PRAI	JP 2000-68083		20000313	<--		

OS MARPAT 135:247015

GI



I

AB The cosmetics contain chromanol glycosides I [R1-R4 = H, C1-6 alkyl; R5 = H, C1-6 alkyl, C1-6 acyl; X = (C1-18 alkyl- or C1-18 acyl-substituted) monosaccharide residue, oligosaccharide residue; m = 0-6; p = 1-10] 0.001-20, acidic mucopolysaccharides 0.001-3, and polyols or their partial esters 0.1-30 wt.%. The cosmetics are nonsticky and show good storage stability.

ST cosmetic chromanol glycoside acidic mucopolysaccharide polyol; moisturizer conditioner antiwrinkle cosmetic chromanol glycoside

IT Mucopolysaccharides, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(acid; skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)

IT Cosmetics
(conditioners; skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)

IT Cosmetics
(moisturizers; skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)

IT Alcohols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(polyhydric; skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)

IT Glycosides
RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)

IT Polyoxyalkylenes, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)

IT Cosmetics
(wrinkle-preventing; skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)

IT 9067-32-7, FCH 200
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(FCH 200; skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)

IT 79907-49-6DP, glycosides **160455-95-8P**
RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)

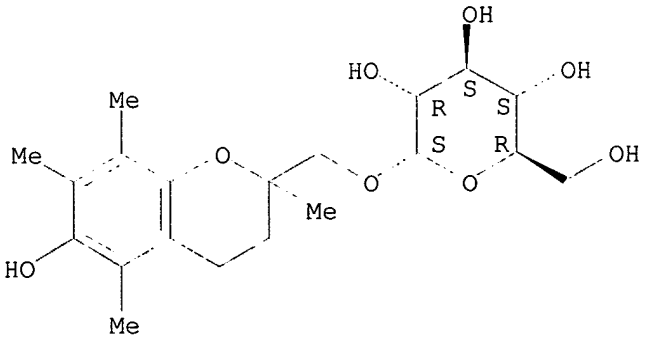
IT 56-81-5, Glycerin, biological studies 9004-99-3, Polyoxyethylene monostearate 9005-65-6, Polyoxyethylene sorbitan monooleate 9005-67-8, Polyoxyethylene sorbitan monostearate 9007-28-7, Chondroitin sulfate 25265-71-8, Dipropylene glycol 25322-68-3, Polyethylene glycol 25496-72-4, Glycerin monooleate 31566-31-1, Glycerin monostearate 49553-76-6, Diglycerin monooleate
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)

IT 9004-53-9, Pinedex 1 79907-49-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)

IT **160455-95-8P**
RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)

RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

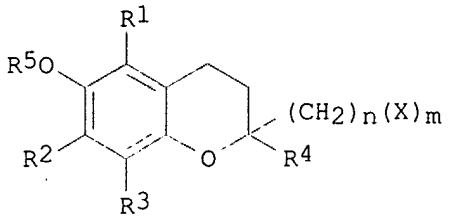
Absolute stereochemistry.



L42 ANSWER 15 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:628693 HCAPLUS
DN 135:190441
TI Chromanol glycosides as tears secretion promoters
IN Fujii, Toshiaki; **Murase, Hironobu**; Kunieda, Tsutomu
PA CCI Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K031-7048
ICS A61K009-08; A61P027-02; C07H015-26; C07H017-065
CC 1-12 (Pharmacology)
Section cross-reference(s): 63
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE

PI	JP 2001233775	A2	20010828	JP 2000-51476	20000228	<--
PRAI	JP 2000-51476		20000228	<--		

GI



I

AB Chromanol glycosides (I; R1, R2, R3, R4 = H, low alkyl; R5= H, low alkyl, low acyl; X = (substituted) mono- or oligo saccharide; N = 0-6; m = 1-6) are claimed as tears secretion promoters for treatment of dry eye, allergic conjunctivitis and other eye diseases. Formulation examples of eye drops and ointments were given.

ST chromanol glycoside tear secretion eye disease

IT Eye, disease
(allergic conjunctivitis; chromanol glycosides as tears secretion promoters)

IT Eye, disease
Tear (ocular fluid)
(chromanol glycosides as tears secretion promoters)

IT Glycosides
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(chromanol glycosides as tears secretion promoters)

IT Eye, disease
(dry; chromanol glycosides as tears secretion promoters)

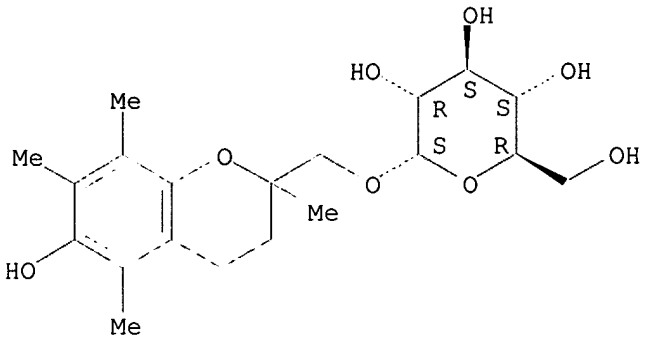
IT 950-99-2D, glycosides **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(chromanol glycosides as tears secretion promoters)

IT **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(chromanol glycosides as tears secretion promoters)

RN 160455-95-8 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

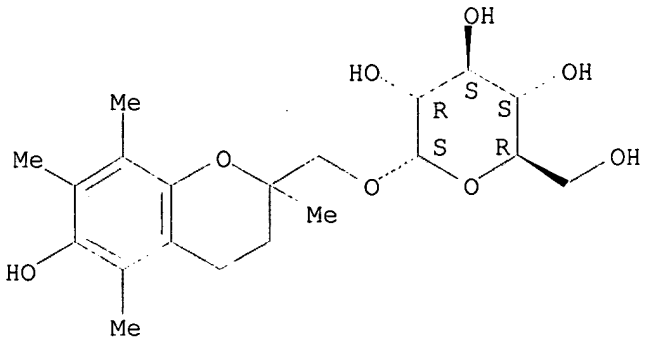


L42 ANSWER 16 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:627006 HCAPLUS
DN 135:185494
TI Chromanol derivatives for the treatment of corneal injuries
IN Fujii, Toshiaki; **Murase, Hironobu**; Kunieda, Tsutomu
PA CCI Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K031-7048
ICS A61K009-08; A61P027-02; C07H015-26; C07H017-065
CC 63-6 (Pharmaceuticals)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2001233774	A2	20010828	JP 2000-44435	20000222 <--
PRAI JP 2000-44435		20000222 <--		

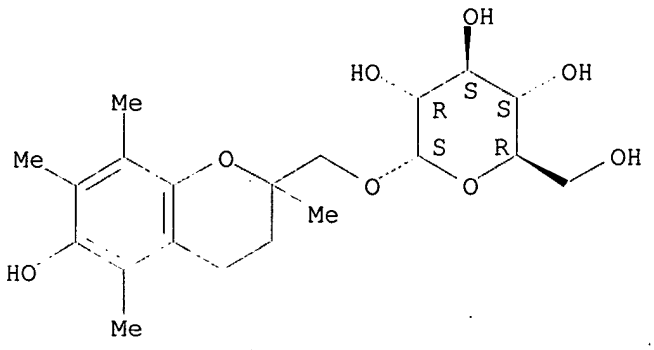
OS MARPAT 135:185494
AB This invention relates to the use of chromanol glycosides for the treatment of corneal injuries. The compd., **2-(.alpha.-D-glucopyranosyl)methyl-2, 5,7,8-tetramethylchroman-6-ol** (I) is claimed. I is formulated in an aq. ophthalmic compn.
ST ophthalmic compn chromanol glycoside cornea injury
IT Eye, disease
(cornea, injury; chromanol glycosides for treatment of corneal injuries)
IT Drug delivery systems
(ointments, ophthalmic; chromanol glycosides for treatment of corneal injuries)
IT Drug delivery systems
(solns., ophthalmic; chromanol glycosides for treatment of corneal injuries)
IT **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(chromanol glycosides for treatment of corneal injuries)
IT **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(chromanol glycosides for treatment of corneal injuries)
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 17 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:622482 HCAPLUS
DN 136:303396
TI A novel water-soluble vitamin E derivative
AU **Murase, Hironobu**
CS Res. Dev. Dep., CCI Corp., Japan
SO Cell (Tokyo, Japan) (**2000**), 32(2), 61-67
CODEN: SAIBD8; ISSN: 0386-4766
PB Nyu Saiensusha
DT Journal; General Review
LA Japanese
CC 1-0 (Pharmacology)
AB A review, discussing the antioxidant effect of a novel water-sol. vitamin E deriv. TMG against ischemia-reperfusion injury.
ST review vitamin E deriv antioxidant TMG antiischemic
IT Anti-ischemic agents
Antioxidants
(a novel water-sol. vitamin E deriv. TMG against ischemia-reperfusion injury)
IT Reperfusion
(ischemia injury; a novel water-sol. vitamin E deriv. TMG against ischemia-reperfusion injury)
IT **160455-95-8, 2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-Tetramethylchroman-6-ol**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(a novel water-sol. vitamin E deriv. TMG against ischemia-reperfusion injury)
IT **160455-95-8, 2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-Tetramethylchroman-6-ol**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(a novel water-sol. vitamin E deriv. TMG against ischemia-reperfusion injury)
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 18 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:549937 HCAPLUS
DN 136:257109
TI Protective effect of a novel vitamin E derivative on experimental traumatic brain edema in rats - preliminary study
AU Ikeda, Y.; Mochizuki, Y.; Nakamura, Y.; Dohi, K.; Matsumoto, H.; Jimbo, H.; Hayashi, M.; Matsumoto, K.; **Yoshikawa, T.**; **Murase, H.**; Sato, K.
CS Department of Neurosurgery, Showa University School of Medicine, Tokyo, Japan
SO Brain Edema XI, Proceedings of the International Symposium, 11th, Newcastle-upon-Tyne, United Kingdom, June 6-10, 1999 (**2000**), Meeting Date 1999, 343-345. Editor(s): Mendelow, A. David. Publisher: Springer-Verlag Wien, Wien, Austria.
CODEN: 69BOY6
DT Conference
LA English
CC 1-11 (Pharmacology)
AB Oxygen free radicals have been proposed to be one of the major mechanisms of secondary brain damage in traumatic brain injury. Protective effect by vitamin E against oxidative damage has attracted much attention. Recent studies have demonstrated a novel vitamin E deriv., **2-(alpha-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol** (TMG), has excellent water-soly. and antioxidant activity. The purpose of this study was to investigate protective effects of TMG on exptl. traumatic brain edema (BE). Male Wistar rats were anesthetized with chloral hydrate. Traumatic BE was produced by a cortical freezing lesion. Animals were sepd. into three groups: saline-treated rats (n = 4). TMG-treated (4 mg/kg) rats (n = 7) and TMG-treated (40 mg/kg) rats (n = 8). Saline or TMG was administered i.v. before lesion prodn. Animals were sacrificed at 6 h after lesion prodn. and the brain water content was detd. by the dry-wet wt. method. Half-life of TMG after i.v. administration of TMG was also investigated. The half life of TMG was approx. 5 min. TMG (40 mg/kg) significantly attenuated BE following cryogenic brain injury ($p < 0.01$). In conclusion, this preliminary study has demonstrated that a novel vitamin E deriv. might be promising in the treatment of traumatic BE.
ST vitamin E deriv TMG antiinflammatory antioxidant trauma brain edema
IT Brain, disease
(edema; protective effect of a novel vitamin E deriv. on exptl. traumatic brain edema in rats)
IT Brain, disease
(injury; protective effect of a novel vitamin E deriv. on exptl. traumatic brain edema in rats)
IT Anti-inflammatory agents
Antioxidants

(protective effect of a novel vitamin E deriv. on exptl. traumatic brain edema in rats)
IT Brain, disease
(trauma; protective effect of a novel vitamin E deriv. on exptl. traumatic brain edema in rats)
IT **160455-95-8, 2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(protective effect of a novel vitamin E deriv. on exptl. traumatic brain edema in rats)
RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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(5) Murase, H; Free Radical Biol Med 1998, V24, P217 HCAPLUS
(6) Murase, H; Lipids 1997, V32, P73 HCAPLUS
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(8) Shohami, E; J Cereb Blood Flow Metab 1997, V17, P1007 HCAPLUS
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(10) Yoshida, S; Neurology 1983, V33, P166 HCAPLUS
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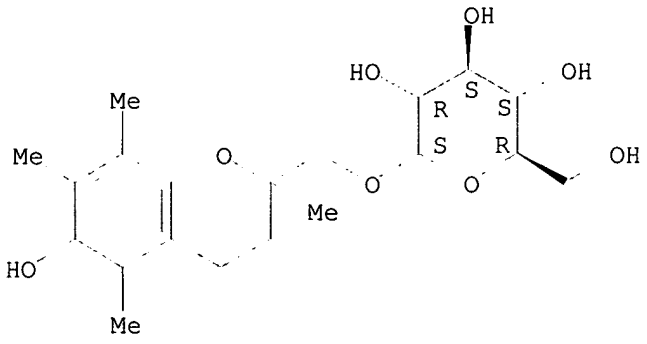
IT **160455-95-8, 2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(protective effect of a novel vitamin E deriv. on exptl. traumatic brain edema in rats)
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 19 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:537012 HCAPLUS
DN 135:354742
TI In vivo radioprotection by .alpha.-TMG: preliminary studies
AU Satyamitra, M.; Devi, P. U.; **Murase, H.**; Kagiya, V. T.
CS Department of Radiobiology, Kasturba Medical College, Manipal, 576119, India
SO Mutation Research (**2001**), 479(1,2), 53-61
CODEN: MUREAV; ISSN: 0027-5107
PB Elsevier Science B.V.

DT Journal
LA English
CC 8-6 (Radiation Biochemistry)
AB .alpha.-TMG is a novel water-sol. deriv. of Vitamin E that has shown excellent antioxidant activity. The parent compd. has demonstrated protection against radiation induced chromosomal damage in vivo. Hence, the preliminary expts. to det. the radioprotective activity of .alpha.-TMG were carried out in adult Swiss albino mice. Acute toxicity of the drug was studied taking 24 h, 72 h and 30 day mortality after a single i.p. injection of 500-2000 mg/kg body wt. of the drug. The drug LD50 for 24 h and 72 h/30 day survival were found to be 1120 and 1000 mg/kg body wt., resp. The optimum time of drug administration and drug dose-dependent effect on in vivo radiation protection of bone marrow chromosomes was studied in mice. Injection of 600 mg/kg of the drug 15 min before or within 5, 15 or 30 min after 3 Gy whole body gamma radiation resulted in a significant decrease in the aberrant metaphases percent at 24 h post-irradn.; the max. effect was seen when the drug was given immediately after irradn. Injection of 200-800 mg/kg TMG within 5 min of irradn. with 3 Gy produced a significant dose-dependent redn. in the radiation induced percent aberrant metaphases and in the frequency of micronucleated erythrocytes at 24 h after exposure, with a corresponding decrease in the different types of aberrations. The optimum dose for protection without drug toxicity was 600 mg/kg body wt. At this dose, TMG produced 70 and >60% redn. in the radiation induced percent aberrant metaphases and micronucleated erythrocytes, resp. The high water soly. and effectiveness when administered post-irradn. favor TMG as a likely candidate for protection in case of accidental exposures.
ST radioprotectant alpha TMG bone marrow chromosome damage gamma radiation
IT Antioxidants
Bone marrow
Radioprotectants
(in vivo radioprotection by .alpha.-TMG [**2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol**])
IT Gamma ray
(irradn.; in vivo radioprotection by .alpha.-TMG [**2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol**])
IT Chromosome
(protection against radiation damage; in vivo radioprotection by .alpha.-TMG [**2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol**])
IT **160455-95-8, 2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol**
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(in vivo radioprotection by .alpha.-TMG [**2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol**])
RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Bender, M; Mutat Res 1988, V196, P103 MEDLINE
(2) Bichay, T; Strahlenther Onkol 1986, V162, P391 HCAPLUS
(3) Chaubey, R; Int J Radiat Biol 1993, V63, P239 MEDLINE
(4) Chopin, J; The Flavonoids 1974, P632
(5) Chow, C; Free Rad Biol Med 1991, V11, P215 HCAPLUS

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(10) Gupta, R; Br J Radiol 1986, V59, P625 HCAPLUS
(11) Hofer, M; Radiat Res 2000, V154, P217 HCAPLUS
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(13) Maisin, J; Radiat Res 1993, V135, P332 HCAPLUS
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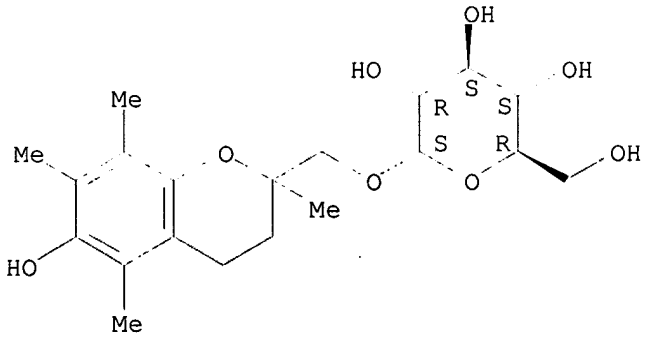
(26) Uma Devi, P; Radiat Res 1999, V151, P74 MEDLINE
(27) Uma Devi, P; Radiat Res 2000, V154, P455 MEDLINE
(28) Yuhas, J; Int J Radiat Biol 1969, V15, P233 HCAPLUS
(29) Yuhas, J; Radiation-Drug Interactions in the Treatment of Cancer 1980, P113

IT **160455-95-8, 2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol**
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(in vivo radioprotection by .alpha.-TMG [**2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol**])

RN 160455-95-8 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 20 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:479755 HCAPLUS

DN 135:71278

TI Chromanol glycosides as chronic articular rheumatoid disease preventive and remedy agents

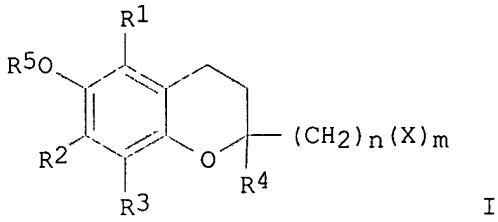
IN **Murase, Hironobu; Yoshikawa, Toshikazu**

PA Cci Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K031-7048
ICS A61P019-02; A61P029-00; C07H017-065
CC 1-7 (Pharmacology)
Section cross-reference(s): 63
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001181191	A2	20010703	JP 1999-367909	19991224 <--

PRAI JP 1999-367909 19991224 <--
GI



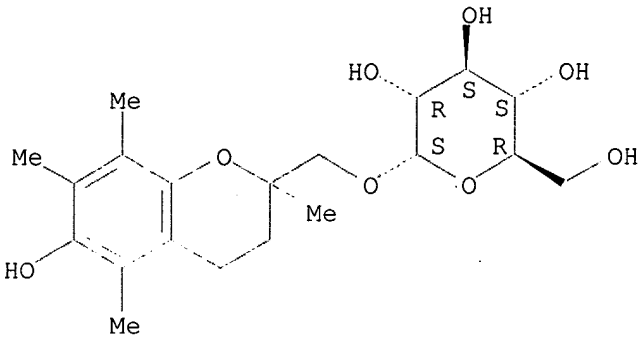
I

AB Chromanol glycosides (I; R1, R2, R3, R4 = H, low alkyl; R5 = H, low alkyl, low acyl; X = (substituted)low alkyl at OH of sugar residue and low acyl of mono- or oligosaccharide residue; N = 0-6; m = 1-6), including **2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol**, are claimed as chronic articular rheumatoid disease preventive and remedy agents. Formulation examples of powders, granules, tablets, capsules, and injections were given.

ST chromanol glycoside articular rheumatoid disease
IT Drug delivery systems
(capsules; chromanol glycosides as chronic articular rheumatoid disease preventive and remedy agents)
IT Antirheumatic agents
(chromanol glycosides as chronic articular rheumatoid disease preventive and remedy agents)
IT Drug delivery systems
(granules; chromanol glycosides as chronic articular rheumatoid disease preventive and remedy agents)
IT Drug delivery systems
(injections; chromanol glycosides as chronic articular rheumatoid disease preventive and remedy agents)
IT Drug delivery systems
(powders; chromanol glycosides as chronic articular rheumatoid disease preventive and remedy agents)
IT Drug delivery systems
(tablets; chromanol glycosides as chronic articular rheumatoid disease preventive and remedy agents)
IT 41903-66-6D, glycosides **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(chromanol glycosides as chronic articular rheumatoid disease preventive and remedy agents)
IT **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(chromanol glycosides as chronic articular rheumatoid disease preventive and remedy agents)
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

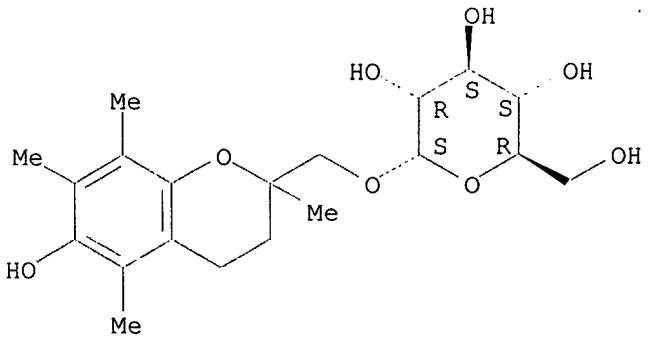
Absolute stereochemistry.



L42 ANSWER 21 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:53295 HCAPLUS
DN 134:322771
TI Study of the radioprotective effects of TMG on teratogenic malformations in irradiated mice
AU Gu, Yeunhwa; Hasegawa, Takeo; Kim, Hwakon; Suzuki, Ikukatsu; Mori, Takehiko; Yamamoto, Youichi
CS Dep. Radiol. Technol., Suzuka Univ. Med. Sci., Suzuka, 510-0293, Japan
SO Nippon Igaku Hoshasen Gakkai Zasshi (**2000**), 60(14), 845-855
CODEN: NHGZAR; ISSN: 0048-0428
PB Nippon Igaku Hoshasen Gakkai
DT Journal
LA Japanese
CC 8-6 (Radiation Biochemistry)
AB ICR mice fetuses in the organogenesis stage were used to clarify exptl. the mechanism of the protective effect of vitamin E deriv. (TMG: **2-(.alpha.-D-glucopyranosyl) methyl-2,5,7,8-Tetramethylchroman-6-ol**) on the effects of radiation. The authors paid careful attention to radiation, and the radioprotective effects of TMG on the induction of malformations was examd. Radiation is an important consideration because of its widespread use in the areas of medicine, nuclear energy, and industry. Malformations induced by radiation at the organogenesis stage, skeletal malformations, and the effects at the cellular level of embryos were examd. in this research. Further, the mechanism of the protection effect of TMG against radiation-induced malformations was analyzed and obsd. exptl. Thus, this study was done to provide fundamental data on the radioprotective agent TMG. It was clear that TMG exerted radioprotective effects against embryonic death and the rate of teratogenesis when administered before exposure. Such effects were also exerted against skeletal malformations and fetal body wt. In summary, radioprotective effects were obsd. at the whole-body level as well as at the cellular level.
ST vitamin E deriv radioprotective fetus malformation; TMG skeletal malformation radioprotectant teratogenesis
IT Toxicity
(embryotoxicity; radioprotective effect of TMG on teratogenic malformation in irradiated mice)

IT Embryo, animal
(fetus; radioprotective effect of TMG on teratogenic malformation in irradiated mice)
IT Skeleton
(malformation; radioprotective effect of TMG on teratogenic malformation in irradiated mice)
IT Cell nucleus
(micronucleus; radioprotective effect of TMG on teratogenic malformation in irradiated mice)
IT Cell nucleus
(pyknosis; radioprotective effect of TMG on teratogenic malformation in irradiated mice)
IT Apoptosis
Body weight
Radioactive pollution
Radioprotectants
Teratogenesis
(radioprotective effect of TMG on teratogenic malformation in irradiated mice)
IT **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(radioprotective effect of TMG on teratogenic malformation in irradiated mice)
IT **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(radioprotective effect of TMG on teratogenic malformation in irradiated mice)
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 22 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2000:706992 HCAPLUS
DN 133:271412
TI Skin preparations containing chromanol glycosides
IN **Murase, Hironobu**; Fujii, Toshiaki
PA CCI Corp., Japan
SO PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
IC A61K031-7048; A61K007-42; A61K007-48; A61P017-00; A61P043-00; C07H015-26;

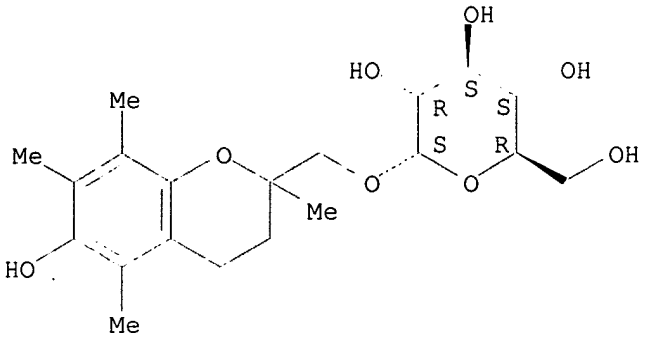
C07H017-065
CC 62-4 (Essential Oils and Cosmetics)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000057889	A1	20001005	WO 2000-JP2034	20000330 <--
	W: CA, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1174140	A1	20020123	EP 2000-912985	20000330 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRAI JP 1999-93874 A 19990331 <--
JP 2000-22596 A 20000131 <--
WO 2000-JP2034 W 20000330 <--
OS MARPAT 133:271412
AB Disclosed are skin prepns. for external use which contain chromanol glycosides. These prepns. are novel prepns. which are excellent in stability and transdermal absorbability, can safely exert favorable effects in a small dose and are usable in preventing and treating skin disorders. They are highly useful as preventives and remedies for disorders caused by UV light, preventives and ameliorators for skin pigmentation, skin whitening agents, skin age resistors, cell potentiators, etc. A lotion contained **2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol** 1, ethanol 3, hydroxyethyl cellulose 0.1, methylparaben 0.1 g, and distd. water q.s. to 100 mL.
ST antiaging skin prepn chromanol glycoside
IT Cosmetics
(antiaging; skin prepns. contg. chromanol glycosides)
IT Cosmetics
(creams; skin prepns. contg. chromanol glycosides)
IT Skin, disease
(hyperpigmentation, UV ray-induced, prevention of; skin prepns. contg. chromanol glycosides)
IT Cosmetics
(lotions; skin prepns. contg. chromanol glycosides)
IT Skin, disease
(photoaging, prevention of; skin prepns. contg. chromanol glycosides)
IT Glycosides
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(skin prepns. contg. chromanol glycosides)
IT Cosmetics
(skin-lightening; skin prepns. contg. chromanol glycosides)
IT **160455-95-8 197315-53-0 220282-93-9 220282-94-0**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(skin prepns. contg. chromanol glycosides)
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Beiersdorf Aktiengesellschaft; DE 19504398 A1 HCAPLUS
(2) Beiersdorf Aktiengesellschaft; EP 726273 A1 HCAPLUS
(3) Beiersdorf Aktiengesellschaft; JP 967401 A
(4) Beiersdorf Aktiengesellschaft; US 5780445 A 1998 HCAPLUS
(5) CCI Corpolation; JP 07118287 A HCAPLUS
(6) CCI Corpolation; US 5478812 A HCAPLUS
(7) CCI Corpolation; US 5889164 A HCAPLUS
(8) CCI Corpolation; EP 611152 A1 1994 HCAPLUS
(9) CCI Corporation; JP 1072356 A 1998
IT **160455-95-8 197315-53-0 220282-93-9**

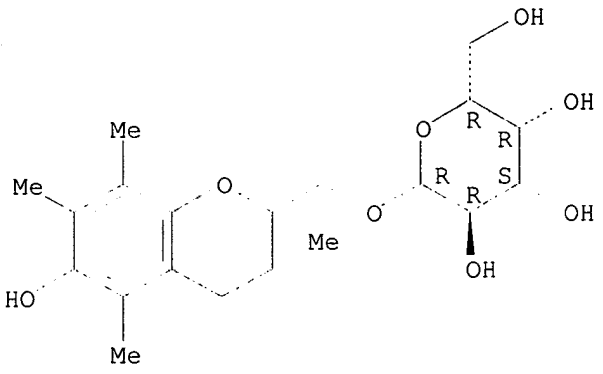
220282-94-0
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(skin prepns. contg. chromanol glycosides)
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



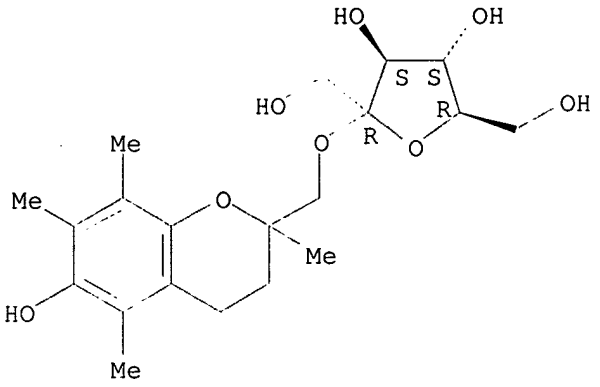
RN 197315-53-0 HCAPLUS
CN .beta.-D-Galactopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



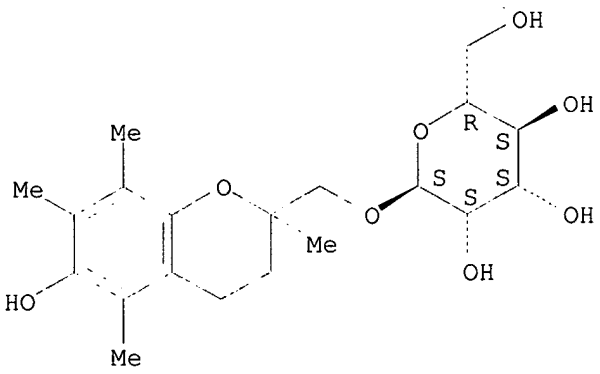
RN 220282-93-9 HCAPLUS
CN .beta.-D-Fructofuranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 220282-94-0 HCAPLUS
CN .alpha.-D-Mannopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



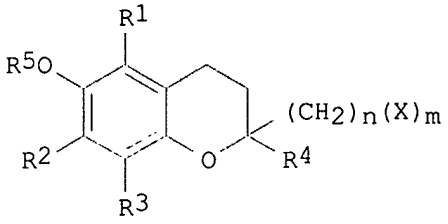
L42 ANSWER 23 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2000:553422 HCAPLUS
DN 133:144917
TI Chromanol glycosides as preventive and therapeutic agents for **arteriosclerosis**
IN **Yoshikawa, Toshikazu; Murase, Hironobu; Yoshida, Norimasa**
PA CCI Corporation, Japan
SO PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
IC ICM A61K031-7048
ICS A61P009-10
CC 1-8 (Pharmacology)
Section cross-reference(s): 63
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000045824	A1	20000810	WO 2000-JP531	20000201 <--

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,

SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
EP 1151753 A1 20011107 EP 2000-902031 20000201 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO
PRAI JP 1999-25392 A 19990202 <--
WO 2000-JP531 W 20000201 <--

GI



I

AB Preventive and therapeutic agents for **arteriosclerosis**, contg. as the active ingredient chromanol glycosides represented by formula (I) (wherein R1, R2, R3 and R4 are each independently hydrogen or lower alkyl; R5 is hydrogen, lower alkyl or lower acyl; X is a mono- or oligosaccharide residue whose hydroxyl hydrogen atoms may be replaced by lower alkyl or lower acyl; n is an integer of 0 to 6; and m is an integer of 1 to 6). These agents are safe and act effectively on an affected part even when applied in a small dose, thus being efficacious in preventing or treating **arteriosclerosis**.

ST chromanol glycoside **antiarteriosclerotic** cholesterol lipoprotein

IT Drug delivery systems
(capsules; chromanol glycosides as preventive and therapeutic agents for **arteriosclerosis**)

IT **Antiarteriosclerotics**
(chromanol glycosides as preventive and therapeutic agents for **arteriosclerosis**)

IT Glycosides
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(chromanol; chromanol glycosides as preventive and therapeutic agents for **arteriosclerosis**)

IT Drug delivery systems
(granules; chromanol glycosides as preventive and therapeutic agents for **arteriosclerosis**)

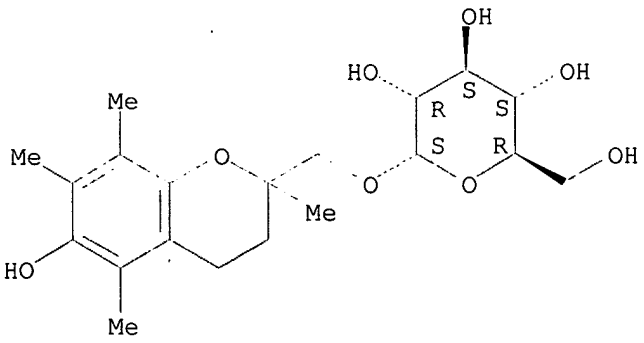
IT Lipoproteins
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(high-d.; chromanol glycosides as preventive and therapeutic agents for **arteriosclerosis**)

IT Drug delivery systems
(injections; chromanol glycosides as preventive and therapeutic agents for **arteriosclerosis**)

IT Lipoproteins
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(low-d.; chromanol glycosides as preventive and therapeutic agents for

arteriosclerosis)
IT Drug delivery systems
(suspensions; chromanol glycosides as preventive and therapeutic agents for **arteriosclerosis**)
IT Drug delivery systems
(tablets; chromanol glycosides as preventive and therapeutic agents for **arteriosclerosis**)
IT 950-99-2D, Chromanol, glycoside derivs. **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(chromanol glycosides as preventive and therapeutic agents for **arteriosclerosis**)
IT 57-88-5, Cholesterol, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(chromanol glycosides as preventive and therapeutic agents for **arteriosclerosis**)
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) CCI Corporation; JP 07118287 A HCAPLUS
(2) CCI Corporation; US 5478812 A HCAPLUS
(3) CCI Corporation; EP 611152 A1 1994 HCAPLUS
(4) Da Silva, E; Archives of Biochemistry and Biophysics 1998, V349(2), P313 HCAPLUS
(5) Toshihiko, O; Nippon Yuka Gakkaishi 1999, V48(10), P1041
(6) Wuyih-Jer; Arterioscler, Thromb, Vasc Biol 1998, V18(3), P481
IT **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(chromanol glycosides as preventive and therapeutic agents for **arteriosclerosis**)
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

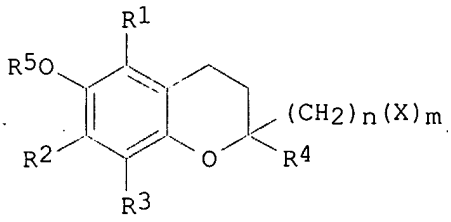


L42 ANSWER 24 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2000:388875 HCAPLUS
DN 133:38236
TI Prophylactic and therapeutic agents for vasogenic brain edema containing chromanol glycosides
IN **Murase, Hironobu; Yoshikawa, Toshikazu**
PA CCI Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF

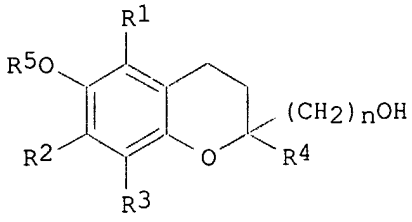
DT Patent
LA Japanese
IC ICM A61K031-7048
ICS A61P007-10; C07H015-26; C07H017-065
CC 1-8 (Pharmacology)
Section cross-reference(s): 63
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2000159676	A2	20000613	JP 1998-340539	19981130 <--
PRAI JP 1998-340539		19981130 <--		

OS MARPAT 133:38236
GI



I



II

AB The agents contain chromanol glycosides I (R1-R4 = H, lower alkyl; R5 = H, lower alkyl, lower acyl; X = monosaccharide or oligosaccharide residue in which H of OH group may be substituted with lower alkyl, lower acyl; n = 0-6; m = 1-6) as active ingredients. The agents may be aq. liqs. **2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol** suppressed edema in a rat brain freeze injury model. Pharmaceutical formulations of II were also given.

ST chromanol glycoside vasogenic brain edema treatment; glucopyranosylmethylchromanol traumatic brain edema treatment

IT Drug delivery systems
(aq.; chromanol glycosides for treatment of vasogenic brain edema)

IT Glycosides
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(chromanol glycosides for treatment of vasogenic brain edema)

IT Drug delivery systems
(injections; chromanol glycosides for treatment of vasogenic brain edema)

IT Brain, disease
(trauma, edema from; chromanol glycosides for treatment of vasogenic brain edema)

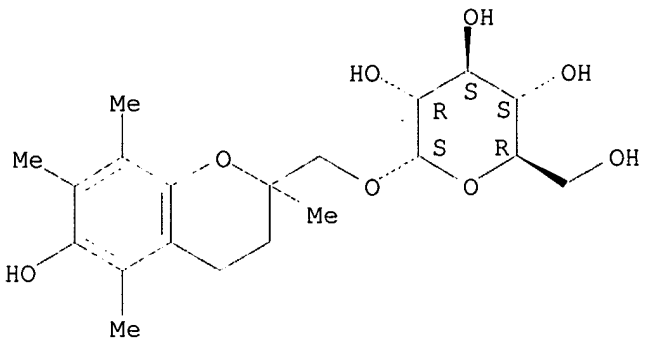
IT Brain, disease
(vasogenic edema; chromanol glycosides for treatment of vasogenic brain edema)

IT **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(chromanol glycosides for treatment of vasogenic brain edema)

IT **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(chromanol glycosides for treatment of vasogenic brain edema)

RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

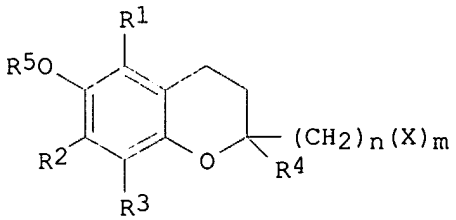
Absolute stereochemistry.



L42 ANSWER 25 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2000:374759 HCAPLUS
DN 133:12745
TI Prophylactic and therapeutic agents for systemic inflammatory response syndrome, containing chromanol glycosides
IN **Murase, Hironobu; Yoshikawa, Toshikazu; Yoshida, Norimasa**
PA CCI Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61P013-00
ICS A61P007-02; A61P011-00; A61P043-00; C07H015-26; C07H017-065
CC 1-7 (Pharmacology)
Section cross-reference(s): 63
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2000154154	A2	20000606	JP 1998-327229	19981117 <--
PRAI JP 1998-327229		19981117 <--		

OS MARPAT 133:12745
GI



I

AB The agents, which show antioxidant effect and are useful for treatment of shock, adult respiratory distress syndrome, multiple organ failure, disseminated intravascular coagulation, etc., contain the chromanol glycosides I (R1-R4 = H, lower alkyl; R5 = H, lower alkyl, lower acyl; X = monosaccharide or oligosaccharide residue in which H of the OH group may be substituted with lower alkyl or lower acyl; n = 0-6; m = 1-6) as active

ingredients. The agents can be used as aq. liqs. Intravascular administration of a physiol. saline soln. of **2-(.alpha .-D-glucopyranosyl)methyl-2, 5,7,8-tetramethylchroman-6 -ol** to rats previously treated with LPS suppressed airway microvascular injury and increased cumulative survival rate.

ST antioxidant chromanol glycoside treatment systemic inflammatory response syndrome; ARDS treatment antioxidant chromanol glycoside; multiple organ failure treatment antioxidant chromanol glycoside; shock treatment antioxidant chromanol glycoside; disseminated intravascular coagulation treatment antioxidant chromanol glycoside

IT Respiratory distress syndrome
(adult; antioxidant chromanol glycosides for treatment of systemic inflammatory response syndrome)

IT Multiple organ failure
Shock (circulatory collapse)
(antioxidant chromanol glycosides for treatment of systemic inflammatory response syndrome)

IT Glycosides
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antioxidant chromanol glycosides for treatment of systemic inflammatory response syndrome)

IT Drug delivery systems
(aq.; antioxidant chromanol glycosides for treatment of systemic inflammatory response syndrome)

IT Blood coagulation
(disseminated intravascular; antioxidant chromanol glycosides for treatment of systemic inflammatory response syndrome)

IT Antioxidants
(pharmaceutical; antioxidant chromanol glycosides for treatment of systemic inflammatory response syndrome)

IT Inflammation
(systemic inflammatory response syndrome; antioxidant chromanol glycosides for treatment of systemic inflammatory response syndrome)

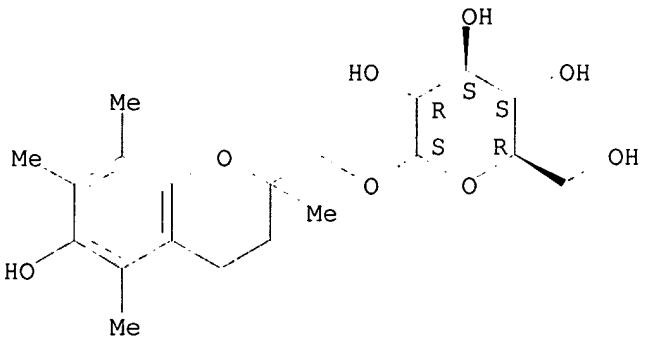
IT **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antioxidant chromanol glycosides for treatment of systemic inflammatory response syndrome)

IT **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antioxidant chromanol glycosides for treatment of systemic inflammatory response syndrome)

RN 160455-95-8 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 26 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 2000:373906 HCAPLUS
DN 133:134625
TI A novel water-soluble vitamin E derivative protects against experimental colitis in rats
AU **Yoshida, Norimasa**; **Yoshikawa, Toshikazu**; Yamaguchi, Taiji; Naito, Yuji; Tanigawa, Toru; **Murase, Hironobu**; Kondo, Motoharu
CS First Department of Internal Medicine, Kyoto Prefectural University of Medicine, Kyoto, 602-8566, Japan
SO Antioxidants & Redox Signaling (**1999**), 1(4), 555-562
CODEN: ARSIF2; ISSN: 1523-0864
PB Mary Ann Liebert
DT Journal
LA English
CC 18-2 (Animal Nutrition)
Section cross-reference(s): 14
AB The effects of water-sol. vitamin E deriv. **2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol** (TMG) on exptl. colitis were investigated in male Wistar rats. Colitis was induced in rats weighing .apprx.200 g by an enema of trinitrobenzenesulfonic acid (TNBS) dissolved in 50% ethanol. TMG dissolved in physiol. saline (0.2, 2, and 20 mg/mL) was injected i.p. (1 mL) every day for 1 wk after the TNBS enema. The damage score, wet wt. of the colon, and increase in body wt. were estd. 1 wk after the enema. Thiobarbituric acid-reactive substances (TBARS), an index of lipid peroxidn., and the levels of .alpha.-tocopherol or TMG in the colonic mucosa were measured 1 wk after the induction of colitis. Body wt. increase was inhibited by the induction of colitis, although the inhibition was smaller in rats treated with TMG. The damage score, wet wt., and TBARS were increased in the colitis group, but were inhibited by TMG. The .alpha.-tocopherol levels in the colonic mucosa were decreased by the induction of colitis, wheres TMG was not be detected in the colonic mucosa of rats treated with TMG. Thus, TMG is effective for the treatment of colitis induced by TNBS in rats.
ST nutrition vitamin E deriv colitis treatment
IT Intestine, disease
(colitis; vitamin E deriv. protects against exptl. colitis in rats)
IT Peroxidation
(lipid; vitamin E deriv. protects against exptl. colitis in rats)
IT Nutrition, animal
(vitamin E deriv. protects against exptl. colitis in rats)
IT **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)

(vitamin E deriv. protects against exptl. colitis in rats)
IT 59-02-9, .alpha. Tocopherol
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(vitamin E deriv. protects against exptl. colitis in rats)
RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Abe, K; J Nutr Sci Vitaminol 1975, V21, P183 HCAPLUS
(2) Allgayer, H; Klin Wochenschr 1991, V15, P1001
(3) Babbs, C; Free Radic Biol Med 1992, V13, P169 MEDLINE
(4) Bousvaros, A; J Pediatr Gastroenterol Nutr 1998, V26, P29
(5) Buffinton, G; Free Radic Biol Med 1995, V19, P911 HCAPLUS
(6) Burton, G; Lancet 1982, V8293, P327
(7) Drevon, C; Vitamin E--Its usefulness in Health and in Curing Diseases 1993, P65 HCAPLUS
(8) Emerit, J; Free Radic Res Commun 1991, V12-13(Pt 2), P563
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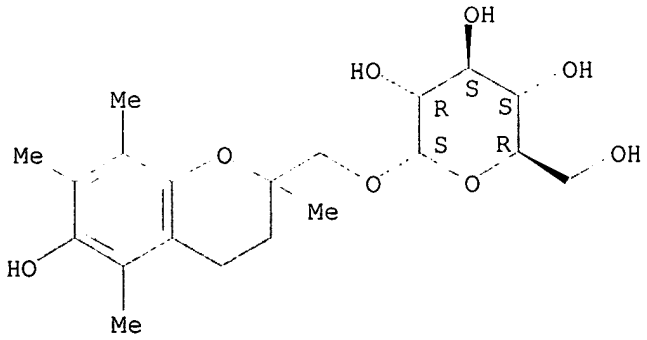
(10) Grisham, M; Gastroenterology 1991, V101, P540 HCAPLUS
(11) Kitahora, T; Dig Dis Sci 1998, V33, P951
(12) Lih-Brody, L; Dig Dis Sci 1996, V41, P2078 HCAPLUS
(13) Morris, G; Gastroenterology 1989, V96, P795 MEDLINE
(14) Mukai, K; J Org Chem 1991, V56, P4188 HCAPLUS
(15) Murase, H; Free Radic Biol Med 1998, V24, P217 HCAPLUS
(16) Murase, H; Lipids 1997, V32, P73 HCAPLUS
(17) Niki, E; J Biol Chem 1984, V259, P4177 HCAPLUS
(18) Nishikimi, M; Biochim Biophys Acta 1980, V627, P101 HCAPLUS
(19) Ohkawa, H; Anal Biochem 1979, V95, P351 HCAPLUS
(20) Palmen, M; Clin Exp Immunol 1995, V101, P351 HCAPLUS
(21) Siems, W; Cell Mol Biol 1992, V38, P189 HCAPLUS
(22) Simmonds, N; Gastroenterology 1992, V103, P186 HCAPLUS
(23) Suematsu, M; J Clin Lab Immunol 1987, V24, P125 HCAPLUS
(24) Yamada, T; Gastroenterology 1992, V102, P1524 HCAPLUS
(25) Yamauchi, R; Agric Biol Chem 1977, V41, P1425 HCAPLUS
(26) Yoshikawa, T; Digestion 1997, V58, P464 HCAPLUS
(27) Yoshikawa, T; Free Radicals and Aging 1992, P353 HCAPLUS
IT **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(vitamin E deriv. protects against exptl. colitis in rats)
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



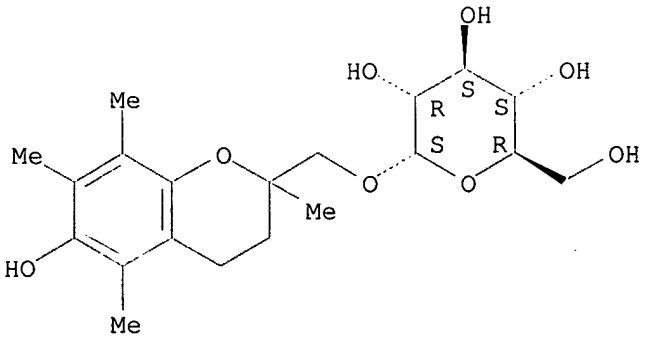
L42 ANSWER 27 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 1999:789698 HCAPLUS

DN 132:26858
TI Chromanol glycoside as preventive and therapeutic agent for eye disease
IN **Murase, Hironobu**; Fujii, Toshiaki; Kunieda, Tsutomu
PA CCI Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K031-70
ICS A61K031-00; C07H015-26; C07H017-065
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 11343241	A2	19991214	JP 1999-93875	19990331 <--
PRAI JP 1998-87065		19980331 <--		

OS MARPAT 132:26858
AB Chromanol glycoside or related compd. as preventive and therapeutic agent for eye disease [i.e. cataract] is claimed. An eye drop contained chromanol glycoside 200, glucose 100 mg and purified water to 2 mL.
ST eye drop chromanol glycoside cataract
IT Cataract
Eye, disease
(chromanol glycoside as preventive and therapeutic agent for eye disease)
IT Drug delivery systems
(solns., ophthalmic; chromanol glycoside as preventive and therapeutic agent for eye disease)
IT **160455-95-8**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(chromanol glycoside as preventive and therapeutic agent for eye disease)
IT **160455-95-8**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(chromanol glycoside as preventive and therapeutic agent for eye disease)
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



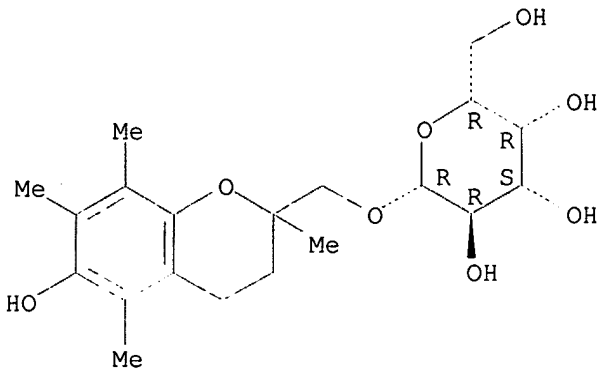
L42 ANSWER 28 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 1999:650398 HCAPLUS
DN 131:287968
TI Manufacture of new chromanol glycosides
IN Ando, Takayuki; Kunieda, Tsutomu; **Murase, Hironobu**

PA CCI Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 23 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C07H015-26
ICS C07H017-065; A61K031-70
CC 44-5 (Industrial Carbohydrates)
Section cross-reference(s): 33, 63
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 11279192	A2	19991012	JP 1998-75599	19980324 <--
PRAI JP 1997-77918		19970328 <--		
JP 1998-21115		19980202 <--		

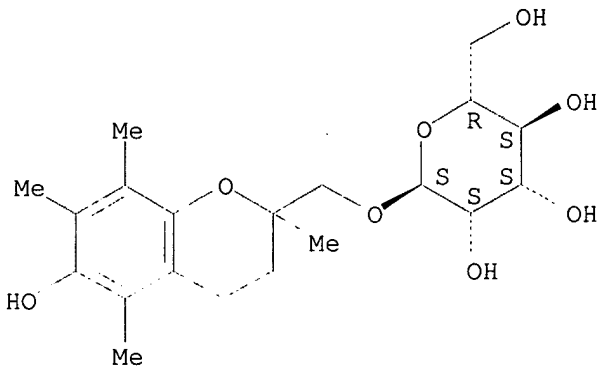
OS MARPAT 131:287968
AB The glycosides useful for treatment of inflammatory enteric disease, radiation protection, etc., are manufd. by condensing 2-hydroxy(or 2-hydroxyalkyl)-chromanol compd. with a sugar which bears a leaving group on the anomeric position and protective groups on the rest of OH groups. Dissolving 2100 mg 2,3,4-tri-O-acetyl-.alpha.-L-fucopyranosyl bromide with 1100 mg 2-hydroxymethyl-2,5,7,8-tetramethylchroman-6-acetate in 10 mL CH2Cl2, adding 3 g mol. sieve 4A, mixing at room temp. for 3 h, adding 1200 mg Ag perchlorate and 1600 mg Ag carbonate, mixing at room temp. for 24 h and working up gave 2-(.beta.-L-fucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol.
ST chromanol glycoside manuf; inflammatory enteric treatment chromanol glycoside
IT 16741-27-8P, 2,3,4-Tri-O-acetyl-.alpha.-L-fucopyranosyl bromide 79907-49-6P 111094-91-8P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; manuf. of new chromanol glycosides for pharmaceutical uses)
IT **197315-53-0P 220282-94-0P 246262-51-1P 246262-52-2P 246262-53-3P**
RL: IMF (Industrial manufacture); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(manuf. of new chromanol glycosides for pharmaceutical uses)
IT 58-86-6, D-Xylose, reactions 59-23-4, D-Galactose, reactions 2438-80-4, L-Fucose 3458-28-4, D-Mannose 3615-41-6, L-Rhamnose
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; manuf. of new chromanol glycosides for pharmaceutical uses)
IT **197315-53-0P 220282-94-0P 246262-51-1P 246262-52-2P 246262-53-3P**
RL: IMF (Industrial manufacture); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(manuf. of new chromanol glycosides for pharmaceutical uses)
RN 197315-53-0 HCAPLUS
CN .beta.-D-Galactopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



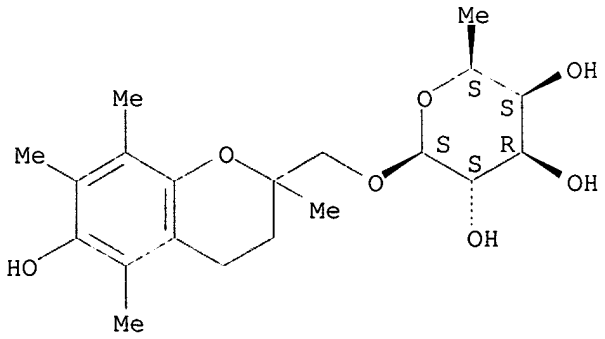
RN 220282-94-0 HCAPLUS
CN .alpha.-D-Mannopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



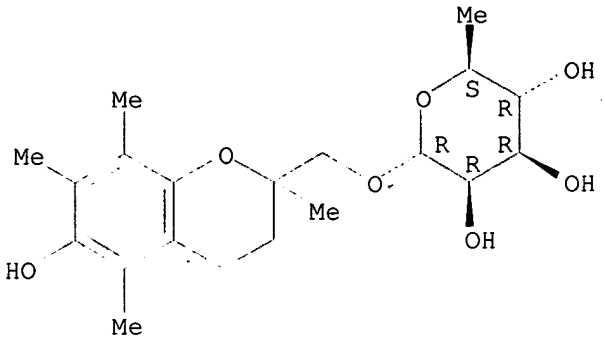
RN 246262-51-1 HCAPLUS
CN .beta.-L-Galactopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl 6-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



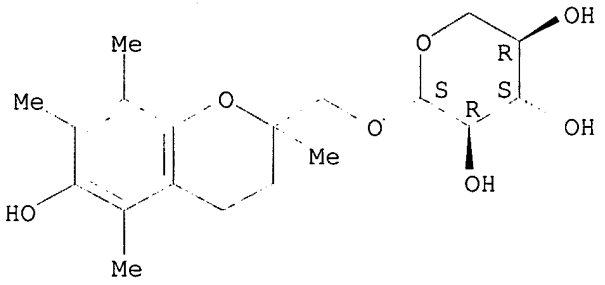
RN 246262-52-2 HCAPLUS
CN .alpha.-L-Mannopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl 6-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 246262-53-3 HCAPLUS
CN .beta.-D-Xylopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

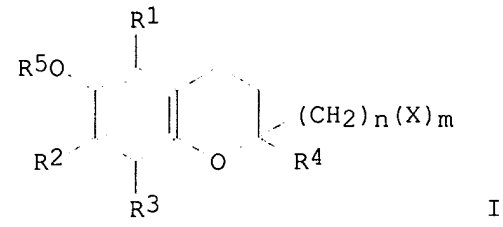
Absolute stereochemistry.



L42 ANSWER 29 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 1999:511031 HCAPLUS
DN 131:134633
TI Preventives and remedies containing chromanol glycoside for ischemic reflow disorder
IN **Yoshikawa, Toshikazu; Murase, Hironobu; Yoshida, Norimasa**
PA CCI Corp., Japan
SO PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
IC ICM A61K031-70
ICS C07H017-065
CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 1
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9939719	A1	19990812	WO 1999-JP7	19990105 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2319798	AA	19990812	CA 1999-2319798	19990105 <--
AU 9916933	A1	19990823	AU 1999-16933	19990105 <--

EP 1066832 A1 20010110 EP 1999-900037 19990105 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
US 2002128211 A1 20020912 US 2001-993194 20011114 <--
PRAI JP 1998-26264 A 19980206 <--
WO 1999-JP7 W 19990105 <--
US 2000-601716 B1 20000922 <--
OS MARPAT 131:134633
GI



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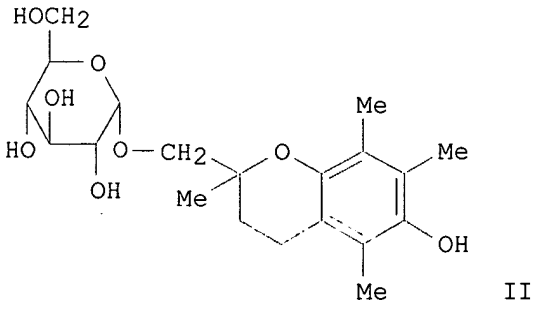


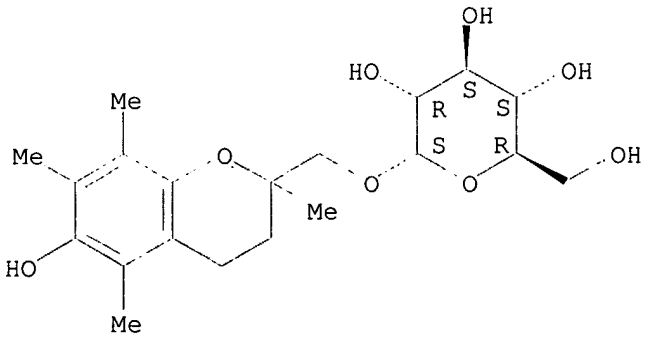
II

AB Preventives and remedies for ischemic reflow disorder contg. chromanol glycosides represented by general formula (I) as the active ingredient (wherein R1, R2, R3 and R4 are the same or different and each represents hydrogen or lower alkyl; R5 represents hydrogen, lower alkyl or lower acyl; X represents a monosaccharide or oligosaccharide residue wherein hydroxylic hydrogen therein may be substituted by lower alkyl or lower acyl; n is an integer of 0 to 6; and m is an integer of 1 to 6) are described. These drugs can efficaciously and safely exert their effects on the affected parts even in a small dose to thereby prevent and treat ischemic reflow disorder in the heart, stomach, small intestine, liver, pancreas, kidney, brain, skin, organ transplantation, etc. Tablets were prepd. from 2-(.alpha.-D-glucopyranosyloxymethyl)-2,5,7,8-tetramethylchroman-6-ol (II) 100, lactose 550, corn starch 215, cryst. cellulose 130, and magnesium stearate 5 g.

ST ischemic reflow disorder chromanol glycoside
IT Brain, disease
Heart, disease
(ischemia, reperfusion; preventives and remedies contg. chromanol glycoside for ischemic reflow disorder)
IT Reperfusion
(ischemic; preventives and remedies contg. chromanol glycoside for ischemic reflow disorder)
IT Intestine, disease
(small, mucous membrane disorders; preventives and remedies contg. chromanol glycoside for ischemic reflow disorder)
IT **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

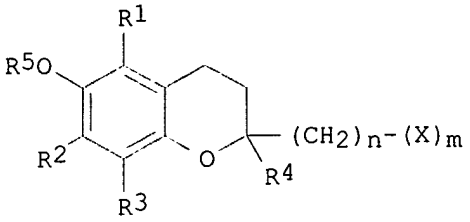
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preventives and remedies contg. chromanol glycoside for ischemic reflow disorder)
RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Cci Corp; JP 08269080 A 1996 HCAPLUS
(2) Cci Corp; JP 09249688 A 1997 HCAPLUS
(3) Eastman Kodak Co; EP 326987 A1 HCAPLUS
(4) Eastman Kodak Co; US 4877810 A HCAPLUS
(5) Eastman Kodak Co; DK 8900363 A HCAPLUS
(6) Eastman Kodak Co; AU 8929536 A HCAPLUS
(7) Eastman Kodak Co; JP 01265022 A 1989 HCAPLUS
(8) Murase, H; Lipids 1997, V32(1), P73 HCAPLUS
(9) Senju Pharmaceutical Co Ltd; CA 1328810 C HCAPLUS
(10) Senju Pharmaceutical Co Ltd; EP 324387 B1 HCAPLUS
(11) Senju Pharmaceutical Co Ltd; US 4948786 A HCAPLUS
(12) Senju Pharmaceutical Co Ltd; DE 68914292 E
(13) Senju Pharmaceutical Co Ltd; JP 02111722 A 1990 HCAPLUS
IT **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preventives and remedies contg. chromanol glycoside for ischemic reflow disorder)
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 30 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 1999:65328 HCAPLUS
DN 130:152654
TI Chromanol glycosides as antioxidants or radioprotectants and their enzymic manufacture
IN Murase, Hronobu; Kunieda, Tsutomu
PA CCI Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C07H015-26
ICS C07H017-065; C08B037-00; C12P019-44; A61K031-70; A61K031-715
CC 16-2 (Fermentation and Bioindustrial Chemistry)
Section cross-reference(s): 1, 8, 63
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE

PI	JP 11021291	A2	19990126	JP 1997-176174	19970701 <--
PRAI	JP 1997-176174		19970701 <--		
OS	MARPAT 130:152654				
GI					



I

AB Title compds. I [R1-R4 = H, lower alkyl; R5 = H, lower alkyl, lower acyl; X = mono- or oligosaccharide residue of (substituted) .beta.-glucose, fructose, mannose, or galactose; n = 0-4; m = 1-6] are manufd. by reaction of I (Xm = OH) with sugars chosen from cellobiose, curdlan, laminaran, melibiose, raffinose, lactose, arabinogalactan, sucrose, inulin, and Me mannopyranoside in the presence of corresponding transglycosylation enzymes. A mixt. of 220 mL 5% I (R1-R4 = Me, R5 = H, Xm = OH, n = 1)/DMSO and 1100 mL 30% cellobiose/acetate buffer was treated with .beta.-glucosidase at 50.degree. for 20 h to give .apprx.500 mg I (R1-R4 = Me, R5 = H, Xm = .beta.-D-glucopyranosyl, n = 1), which in vitro showed 20% inhibition of 2,2'-azobis(2-amidinopropane).2HCl-initiated oxidn. of human HepG2 cell membranes.

ST chromanol glycoside manuf enzyme antioxidant radioprotectant; glucosidase chromanol glycoside manuf antioxidant radioprotectant

IT Antioxidants
Radioprotectants
(enzymic manuf. of chromanol glycosides as antioxidants or radioprotectants)

IT **220282-91-7P 220282-92-8P 220282-93-9P 220282-94-0P**
RL: BAC (Biological activity or effector, except adverse); BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(enzymic manuf. of chromanol glycosides as antioxidants or radioprotectants)

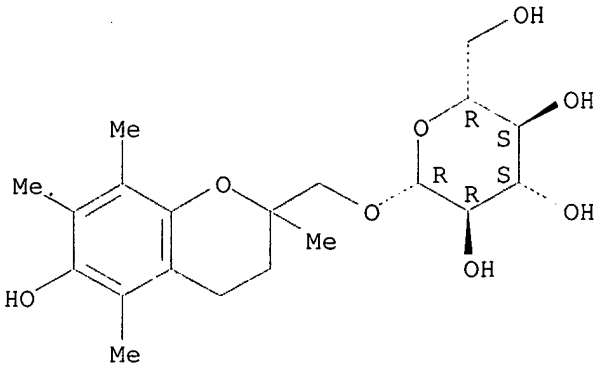
IT 9001-22-3, .beta.-Glucosidase 9001-57-4, Invertase 9025-42-7, .alpha.-Mannosidase 9031-11-2, .beta.-Galactosidase
RL: CAT (Catalyst use); USES (Uses)
(enzymic manuf. of chromanol glycosides as antioxidants or radioprotectants)

IT 57-50-1, Sucrose, reactions 63-42-3, Lactose 512-69-6, Raffinose 528-50-7, Cellobiose 585-99-9, Melibiose 9005-80-5, Inulin 9008-22-4, Laminaran 9036-66-2, Arabinogalactan 51023-63-3, Mannopyranoside, methyl- 54724-00-4, Curdlan 79907-48-5 79907-49-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(enzymic manuf. of chromanol glycosides as antioxidants or radioprotectants)

IT **220282-91-7P 220282-92-8P 220282-93-9P 220282-94-0P**
RL: BAC (Biological activity or effector, except adverse); BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(enzymic manuf. of chromanol glycosides as antioxidants or

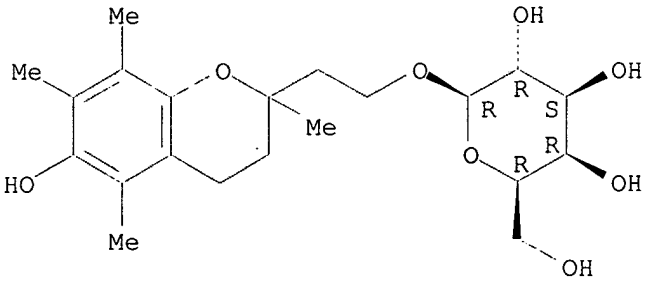
radioprotectants)
RN 220282-91-7 HCAPLUS
CN .beta.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



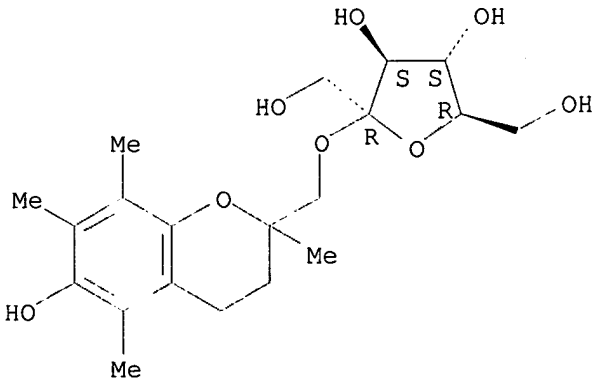
RN 220282-92-8 HCAPLUS
CN .beta.-D-Galactopyranoside, 2-(3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)ethyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 220282-93-9 HCAPLUS
CN .beta.-D-Fructofuranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

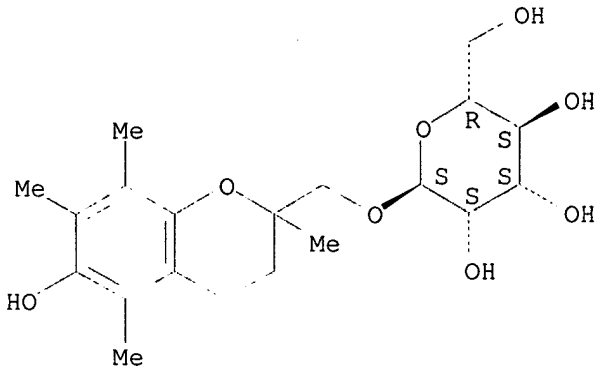
Absolute stereochemistry.



RN 220282-94-0 HCAPLUS

CN .alpha.-D-Mannopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



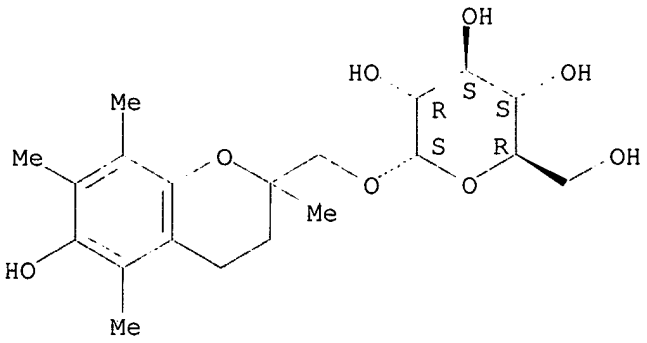
L42 ANSWER 31 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 1998:402325 HCAPLUS
DN 129:76508
TI Prophylactic and therapeutic agent for inflammatory intestinal diseases
IN **Yoshikawa, Toshikazu; Yoshida, Norimasa; Murase, Hironobu**
PA CCI Corp., Japan; Yoshikawa, Toshikazu; Yoshida, Norimasa; Murase, Hironobu
SO PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
IC ICM A61K031-70
ICS A61K009-08; C07H015-26
CC 1-9 (Pharmacology)
Section cross-reference(s): 63
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 9825629	A1	19980618	WO 1997-JP4544	19971210	<--
	W: CA, CN, KR, US					
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
	JP 10168095	A2	19980623	JP 1996-329901	19961210	<--
	EP 965344	A1	19991222	EP 1997-947879	19971210	<--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
	CN 1245430	A	20000223	CN 1997-181590	19971210	<--
	KR 2000057457	A	20000915	KR 1999-705092	19990608	<--
	US 6174864	B1	20010116	US 1999-319647	19990809	<--
PRAI	JP 1996-329901	A	19961210	<--		
	WO 1997-JP4544	W	19971210	<--		

OS MARPAT 129:76508
AB The invention relates to a prophylactic and therapeutic agent for inflammatory intestinal diseases comprising as the active ingredient a chromanol glucoside. Since it contains as the active ingredient the chromanol glucoside which is sol. in water and possesses excellent antioxidn. activity and anti-free radical activity, it can significantly prevent any pathol. change in inflammatory intestinal diseases and markedly improve the pathol. Further, it can be made into an aq. prepn. contg. the active ingredient in a high concn. and the aq. prepn. can effectively act in a small amt. on the affected part to prevent or treat inflammatory intestinal diseases and, since no side effect accompanies,

can be very safely used.
ST inflammatory intestinal disease chromanol glucoside
IT Intestine, disease
(Crohn's; prophylactic and therapeutic agent for inflammatory intestinal diseases)
IT Intestine, disease
(colitis, ulcerous; prophylactic and therapeutic agent for inflammatory intestinal diseases)
IT Intestine, disease
(inflammatory; prophylactic and therapeutic agent for inflammatory intestinal diseases)
IT Anti-inflammatory agents
(prophylactic and therapeutic agent for inflammatory intestinal diseases)
IT 950-99-2D, Chromanol, glucoside **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prophylactic and therapeutic agent for inflammatory intestinal diseases)
RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Bayer Ag; JP 08253466 A 1996 HCAPLUS
(2) Bayer Ag; EP 731099 A 1996 HCAPLUS
(3) CCI Corp; JP 07118287 A 1995 HCAPLUS
(4) CCI Corp; EP 611152 A 1995 HCAPLUS
(5) Eisai Co Ltd; JP 05246847 A 1993 HCAPLUS
(6) Eli Lilly And Co; JP 06157310 A 1994 HCAPLUS
(7) Eli Lilly And Co; US 5294630 A 1994 HCAPLUS
(8) Eli Lilly And Co; EP 578477 A 1994 HCAPLUS
(9) Ono Pharmaceutical Co Ltd; JP 07112980 A 1995 HCAPLUS
(10) Ono Pharmaceutical Co Ltd; JP 07316150 A 1995 HCAPLUS
(11) Ono Pharmaceutical Co Ltd; EP 640609 A 1995 HCAPLUS
(12) Otsuka Pharmaceutical Co Ltd; US 5639770 A 1994 HCAPLUS
(13) Otsuka Pharmaceutical Co Ltd; EP 600092 A 1994 HCAPLUS
(14) Otsuka Pharmaceutical Co Ltd; JP 665222 A 1994
(15) Otsuka Pharmaceutical Co Ltd; WO 9324472 A 1994 HCAPLUS
(16) Sepracor Inc; JP 08510253 A 1996
(17) Sepracor Inc; US 5629337 A 1996 HCAPLUS
(18) Sepracor Inc; EP 711159 A 1996 HCAPLUS
(19) Sepracor Inc; WO 9426259 A 1996 HCAPLUS
(20) Teijin Ltd; JP 05294834 A 1993 HCAPLUS
IT **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prophylactic and therapeutic agent for inflammatory intestinal diseases)
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

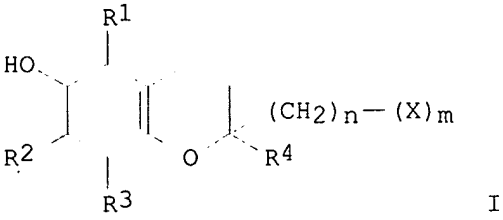
Absolute stereochemistry.



L42 ANSWER 32 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 1998:176292 HCAPLUS
DN 128:267792
TI Radioprotectants containing chromanol glycosides.
IN Kunugida, Naoki; Goncharova, Tatyana; Norimura, Toshiyuki; Kagitani, Tsutomu; **Murase, Hironobu**
PA CCI Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K031-70
ICS A61K009-08; C07H015-26; C12P019-58; C12P019-60
CC 8-9 (Radiation Biochemistry)
Section cross-reference(s): 63
FAN.CNT 1

	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE
PI	JP 10072356	A2	19980317		JP 1996-229874	19960830 <--
PRAI	JP 1996-229874		19960830	<--		

OS MARPAT 128:267792
GI



I

AB The radioprotectants contain chromanol glycosides I (R1 - R4 = H, lower alkyl; X = monosaccharide residue which may be O-substituted with lower alkyl, lower acyl; n = 0-6; m = 1-6) as active ingredients. The radioprotectants may be in the forms of aq. liqs. Preincubation of mouse T lymphoma EL-4 cells in a medium contg. I (R1 = R2 = R3 = R4 = Me, X = .alpha.-D-glucopyranosyl, m = n = 1) (II) dose-dependently suppressed micronucleus formation upon x-ray irradn. An i.p. injection of I was also formulated.
ST chromanol glucoside radioprotectant
IT Radioprotectants
(radioprotectants contg. chromanol glycosides)
IT Glycosides

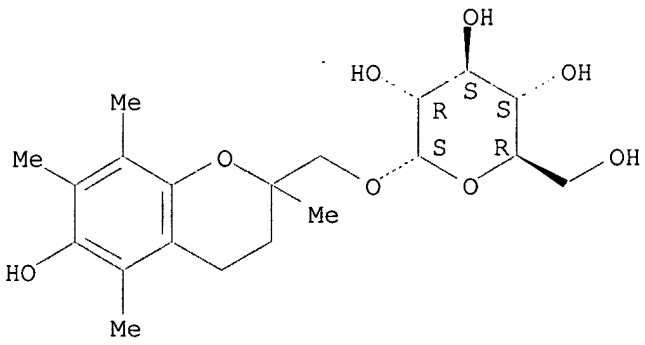
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(radioprotectants contg. chromanol glycosides)

IT 41903-66-6D, Chromanol, glycosides **160455-95-8** **160455-97-0** **197315-53-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(radioprotectants contg. chromanol glycosides)

IT **160455-95-8** **160455-97-0** **197315-53-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(radioprotectants contg. chromanol glycosides)

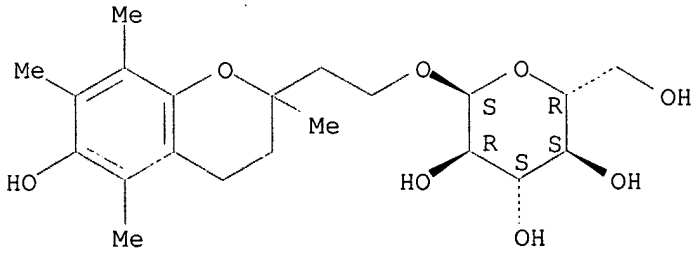
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



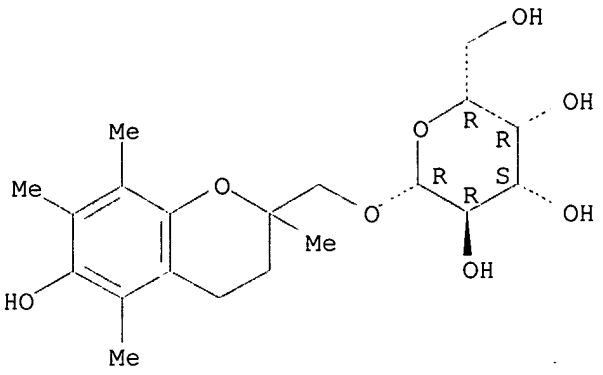
RN 160455-97-0 HCAPLUS
CN .alpha.-D-Glucopyranoside, 2-(3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)ethyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



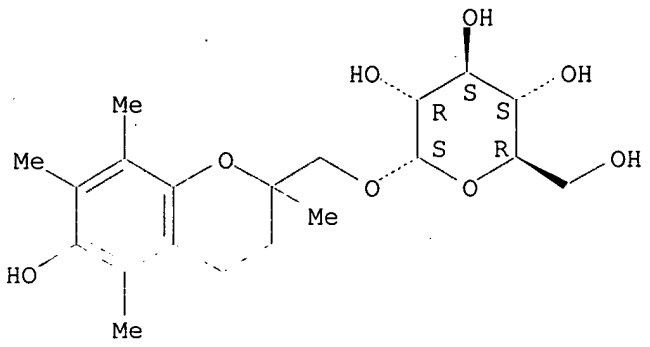
RN 197315-53-0 HCAPLUS
CN .beta.-D-Galactopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 33 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 1998:147988 HCAPLUS
DN 128:243254
TI Antioxidant effects of novel water-soluble vitamin E derivatives (chromanol glycoside) on human blood plasma
AU Bun, Saikaku; Terao, Junji; Yamauchi, Ryo; **Murase, Hironobu**; Kato, Koji; Kunieda, Tsutomu
CS Natl. Food. Res. Inst., Minist. Agric. Forest. Fish., Japan
SO Bitamin E Kenkyu no Shinpo (**1997**), 7, 77-83
CODEN: BKSHFT
PB Kyoritsu Shuppan
DT Journal
LA Japanese
CC 18-2 (Animal Nutrition)
Section cross-reference(s): 13
AB **2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol** [TMG], a vitamin E deriv., showed antioxidant activity in human blood plasma. Formation of cholesterol ester hydroxyl oxide was used as an indicator for lipid oxidn. in blood plasma. TMG was more stable than ascorbic acid in blood.
ST chromanol glycoside antioxidant blood plasma; vitamin E deriv chromanol glycoside
IT Antioxidants
Blood plasma
(antioxidant effects of novel water-sol. vitamin E deriv. (chromanol glycoside) on human blood plasma)
IT 1406-18-4D, Vitamin e, deriv. **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(antioxidant effects of novel water-sol. vitamin E deriv. (chromanol glycoside) on human blood plasma)
IT **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(antioxidant effects of novel water-sol. vitamin E deriv. (chromanol glycoside) on human blood plasma)
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



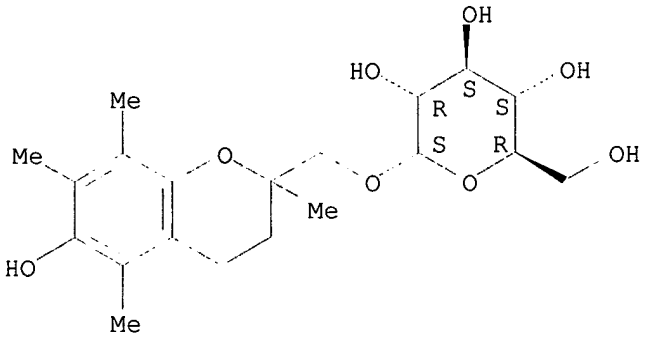
L42 ANSWER 34 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 1997:800026 HCAPLUS
DN 128:127403
TI Antioxidant activity of a novel vitamin E derivative, **2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol**
AU **Murase, Hironobu**; Moon, Jae-Hak; Yamauchi, Ryo; Kato, Koji; Kunieda, Tsutomu; **Yoshikawa, Toshikazu**; Terao, Junji
CS The United Graduate School of Agricultural Sciences, Gifu University, Gifu, 501-11, Japan
SO Free Radical Biology & Medicine (**1997**), Volume Date 1998, 24(2), 217-225
CODEN: FRBMEH; ISSN: 0891-5849
PB Elsevier Science Inc.
DT Journal
LA English
CC 18-2 (Animal Nutrition)
AB A novel vitamin E deriv., **2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol** (TMG), has excellent water-soly. (> 1 .times. 103 mg/mL). The antioxidant activity of TMG was investigated. Kinetic studies of the inhibition of radical-chain reaction of Me linoleate in soln. demonstrated that the peroxyl radical-scavenging activity was not changed by the replacement of the phytyl side chain of vitamin E by a glucosyl group. ·TMG acted as an effective inhibitor on lipid peroxidn. of egg yolk phosphatidylcholine (PC)-liposomal suspension induced by a water-sol. and a lipid-sol. radical generator, 2,2'-azobis(2-amidinopropane) dihydrochloride (AAPH) and 2,2'-azobis(2,4-dimethylvaleronitrile) (AMVN). Its effectiveness was higher than that of ascorbic acid (AsA) when liposomal suspension was exposed to a lipid-sol. radical generator, AMVN. TMG also showed an excellent antioxidant activity on cupric ion-induced lipid peroxidn. of PC-liposomal suspension, and suppressed the oxidn. of rat brain homogenate which contained a trace level of iron. On the other hand, AsA acted as a prooxidant on both the cupric ion-induced liposomal peroxidn. and the oxidn. of rat brain homogenate. When human plasma was exposed to either AAPH or AMVN, the accumulation of cholesteryl ester hydroperoxides was retarded by the addn. of TMG.
ST vitamin E activity antioxidant glucopyranosylmethyltetramethylchromanol; chromanol glucopyranosylmethyltetramethyl vitamin E activity; tetramethylchromanol glucopyranosylmethyl vitamin E activity
IT Antioxidants
(Antioxidant activity of a novel vitamin E deriv., **2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol**)

IT 1406-18-4D, Vitamin E, derivs. **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(Antioxidant activity of a novel vitamin E deriv., **2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol**)

IT **160455-95-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(Antioxidant activity of a novel vitamin E deriv., **2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol**)

RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

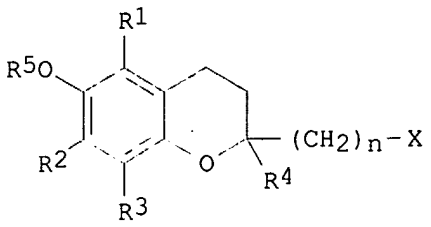
Absolute stereochemistry.



L42 ANSWER 35 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 1997:797956 HCAPLUS
DN 128:87914
TI Production method of the glycoside by the immobilized enzyme.
IN Kunieda, Tsutomu; **Murase, Hironobu**
PA CCI Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C12P019-44
ICS C07H001-00; C07H015-26; C07H017-065; C12N011-02
CC 16-2 (Fermentation and Bioindustrial Chemistry)
Section cross-reference(s): 7
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09313196	A2	19971209	JP 1997-16756	19970130 <--
PRAI	JP 1996-72843		19960327 <--		

OS MARPAT 128:87914
GI



I

AB Physiol. active substances that have poor soly. are glycosylated with sugar transferase immobilized on porous chitosan bead to manuf. glycosylated physiol. active substances, such as chromanol glycosides (I: R1-4 = H or lower alkyl; R5 = H, lower alkyl, or lower acyl; X = glucose residue or derivs.; n = 0-4) that have excellent water soly. The physiol. active substances contain OH group(s). Crosslinking agents greatly improve the stability of the immobilized enzyme. The immobilized enzyme is stable in org. solvents. Prepn. of immobilized .alpha.-glucosidase and manuf. of one I were shown.

ST chromanol glycoside manuf immobilized glucosidase; chitosan carrier glycosylation enzyme chromanol glycoside

IT Glycosides
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(chromanol; prodn. method of chromanol glycoside by immobilized enzyme)

IT Solvents
(org.; prodn. method of chromanol glycoside by immobilized enzyme)

IT Bacillus stearothermophilus
Crosslinking agents
Immobilization, biochemical
Saccharomyces
(prodn. method of chromanol glycoside by immobilized enzyme)

IT 9012-76-4, Chitosan
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(porous bead of; prodn. method of chromanol glycoside by immobilized enzyme)

IT **160455-95-8P**
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(prodn. method of chromanol glycoside by immobilized enzyme)

IT 69-79-4, Maltose 79907-49-6
RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
(prodn. method of chromanol glycoside by immobilized enzyme)

IT 616-42-2, Dimethoxysulfoxide
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(prodn. method of chromanol glycoside by immobilized enzyme)

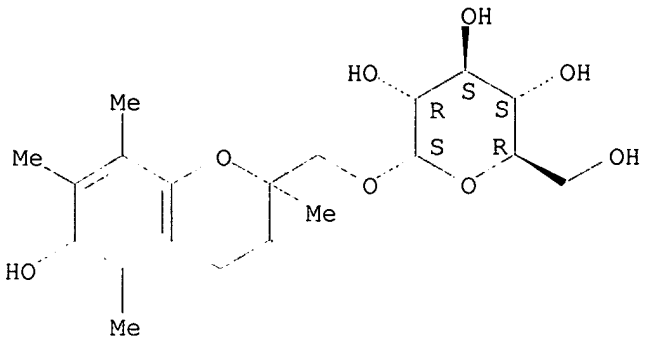
IT 111-30-8, Glutaraldehyde 141489-60-3, Chitopearl bcw-3010 195460-22-1, Chitopearl bcw-2501 195460-23-2, Chitopearl bcw-2601 195460-25-4, Chitopearl bcw-3501
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(prodn. method of chromanol glycoside by immobilized enzyme)

IT 9001-42-7, .alpha.-Glucosidase 9032-08-0
RL: CAT (Catalyst use); USES (Uses)
(prodn. method of chromanol glycoside by immobilized enzyme)

IT **160455-95-8P**
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)

(prodn. method of chromanol glycoside by immobilized enzyme)
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

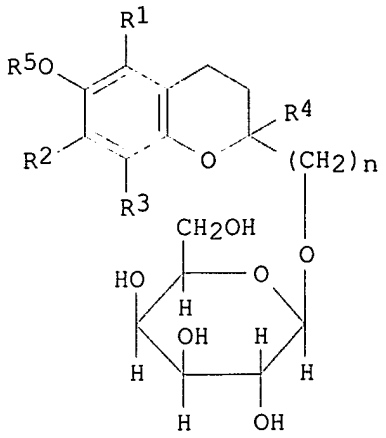
Absolute stereochemistry.



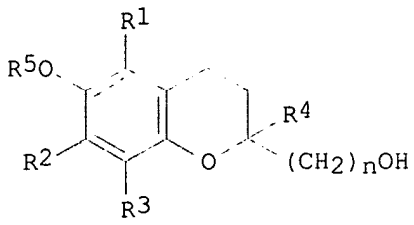
L42 ANSWER 36 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 1997:640435 HCAPLUS
DN 127:307610
TI Preparation of chromanol glycosides as antioxidants by enzymic glycosylation of chromanols
IN Murase, Hironori; Kunieda, Tsutomu
PA CCI Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C07H015-26
ICS A61K031-71; C07H017-065; C09K015-06; C12P019-58; C12P019-60; A23L003-3562
CC 33-3 (Carbohydrates)
Section cross-reference(s): 17, 62, 63
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 09249688	A2	19970922	JP 1996-293590	19961106 <--
PRAI JP 1996-3402		19960111 <--		

OS MARPAT 127:307610
GI



I



II

AB The title chromanol .beta.-galactopyranosides (I; R1 - R4 = H, lower alkyl; R5 = H, lower alkyl, lower acyl; the H atoms of hydroxy groups in the sugar residue are optionally substituted with lower alkyl or acyl), which are useful as water-sol. antioxidants for food, drugs, and cosmetics, are prepd. by reacting a soln. contg. a chromanol (II; R1 - R4 = same as above) and a .beta.-galactosyl sugar compd. with .beta.-galactosidase (EC3.2.1.23). An antioxidant contg. above compd. I as the active ingredient is claimed. Thus, to a soln. of 40 (wt./vol.) % lactose in 50 mM phosphate buffer (pH 6.5, 160 mL) were added as a soln. of 5 (wt./vol.) % II (R1 - R4 = Me, R5 = H, n = 1) in DMSO (32 mL) and 1,600 U .beta.-galactosidase derived from Escherichia coli and the resulting mixt. was allowed to react at 40.degree. for 20 h to give, after column chromatog. on a column of XAD-4 resin and then a column of silica gel, .apprx.300 mg I (R1 - R4 = Me, R5 = H, n = 1). The latter compd. was more effective than L-ascorbic acid for inhibiting the radical chain autoxidn. of multilayer liposomes contg. egg yolk phosphatidylcholine by a fat-sol. radical generator, i.e. 2,2'-azobis(2,4-dimethylvarelonitrile). It showed water soly. of .apprx.1,000 mg/mL vs. 0.2 mg/mL for Trolox (Aldrich Chem. Company, U.S.A.).

ST chromanol glycoside prepn antioxidant; lactose enzymic glycosylation chromanol

IT Antioxidants
Glycosylation
(prepn. of chromanol glycosides as antioxidants by enzymic glycosylation of chromanols with galactose-contg. sugar)

IT Glycosides
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of chromanol glycosides as antioxidants by enzymic glycosylation of chromanols with galactose-contg. sugar)

IT Cosmetics
Drugs
Food
(prepn. of chromanol glycosides as antioxidants for food, cosmetics, and drugs)

IT Glycosylation catalysts
(.beta.-galactosidase; prepn. of chromanol glycosides as antioxidants by enzymic glycosylation of chromanols with galactose-contg. sugar)

IT 9031-11-2P, .beta.-Galactosidase
RL: BPN (Biosynthetic preparation); CAT (Catalyst use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(of Escherichia coli; prepn. of chromanol glycosides as antioxidants by enzymic glycosylation of chromanols with galactose-contg. sugar)

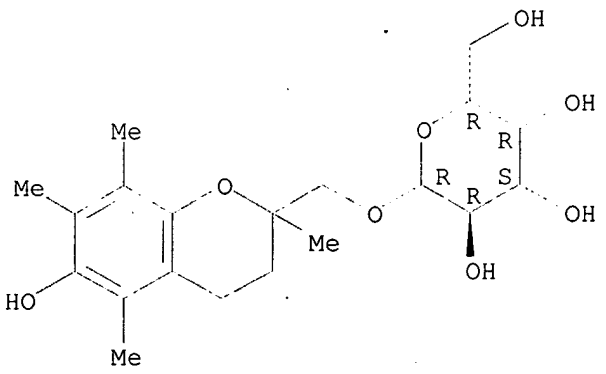
IT **197315-53-0P**
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of chromanol glycosides as antioxidants by enzymic glycosylation of chromanols with galactose-contg. sugar)

IT 63-42-3, Lactose 79907-49-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of chromanol glycosides as antioxidants by enzymic glycosylation of chromanols with galactose-contg. sugar)

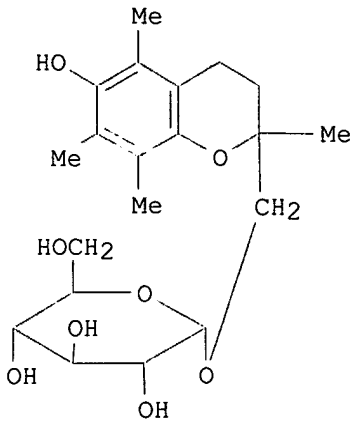
IT **197315-53-0P**
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of chromanol glycosides as antioxidants by enzymic glycosylation of chromanols with galactose-contg. sugar)

RN 197315-53-0 HCAPLUS
CN .beta.-D-Galactopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 37 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 1997:86461 HCAPLUS
DN 126:199722
TI Synthesis of a novel vitamin E derivative, 2-(.alpha.-D-glucopyranosyl)methyl-2,3,7,8-tetramethylchroman-6-ol, by .alpha.-glucosidase-catalyzed transglycosylation
AU **Murase, Hironobu**; Yamauchi, Ryo; Kato, Koji; Kunieda, Tsutomu; Terao, Junji
CS United Graduate Sch. Agricultural Sciences, Gifu Univ., Gifu, 501-11, Japan
SO Lipids (**1997**), 32(1), 73-78
CODEN: LPDSAP; ISSN: 0024-4201
PB AOCS Press
DT Journal
LA English
CC 33-3 (Carbohydrates)
GI



I

AB A novel deriv. of vitamin E, vitamin E glucoside, was synthesized from 2-hydroxymethyl-2,5,7,8-tetramethylchroman-6-ol and maltose in a soln. contg. DMSO by transglycosylation with .alpha.-glucosidase from Saccharomyces species. The glycosylated product was identified as **2-(.alpha.-D-glucopyranosyl) methyl-2,5,7,8-tetramethylchroman-6-ol** I (TMG) by mass spectrometry and NMR spectroscopy. The optimal pH of transglycosylation was 5.5, and the yield of TMG increased as the concn. of maltose increased. TMG has high soly. in water (>1 .times. 103 mg/mL). The 1,1-diphenyl-2-picrylhydrazyl radical scavenging activity of TMG was found to be nearly the same as those of .alpha.-tocopherol, Trolox (2-carboxy-2,5,7,8-tetramethylchroman-6-ol), and ascorbic acid.

ST hydroxymethyltetramethylchromanol transglycosylation glucosidase maltose; glucopyranosylmethyltetramethylchromanol prepn glucosidase transglycosylation; vitamin E glucoside prepn glucosidase transglycosylation

IT Antioxidants
(prepn. of a vitamin E deriv. via .alpha.-glucosidase catalyzed transglycosylation)

IT Transglycosylation
(.alpha.-glucosidase-catalyzed; prepn. of a vitamin E deriv. via .alpha.-glucosidase catalyzed transglycosylation)

IT 9001-42-7, .alpha.-Glucosidase
RL: CAT (Catalyst use); USES (Uses)
(from Saccharomyces sp.; prepn. of a vitamin E deriv. via .alpha.-glucosidase catalyzed transglycosylation)

IT 9001-22-3, .beta.-Glucosidase
RL: CAT (Catalyst use); USES (Uses)
(from sweet almond; prepn. of a vitamin E deriv. via .alpha.-glucosidase catalyzed transglycosylation)

IT **160455-95-8P 187799-01-5P 187799-02-6P**
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)
(prepn. of a vitamin E deriv. via .alpha.-glucosidase catalyzed transglycosylation)

IT 50-99-7, D-Glucose, reactions 59-02-9 69-79-4, Maltose 53101-49-8 53174-06-4 53188-07-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of a vitamin E deriv. via .alpha.-glucosidase catalyzed transglycosylation)

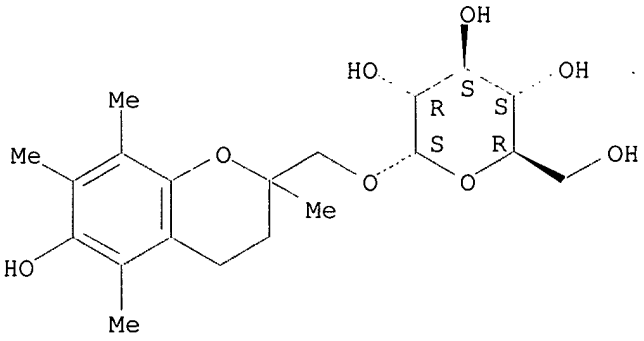
IT 69427-83-4P 79907-49-6P 163180-79-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)
(prepn. of a vitamin E deriv. via .alpha.-glucosidase catalyzed transglycosylation)

IT **160455-95-8P 187799-01-5P 187799-02-6P**
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)
(prepn. of a vitamin E deriv. via .alpha.-glucosidase catalyzed transglycosylation)

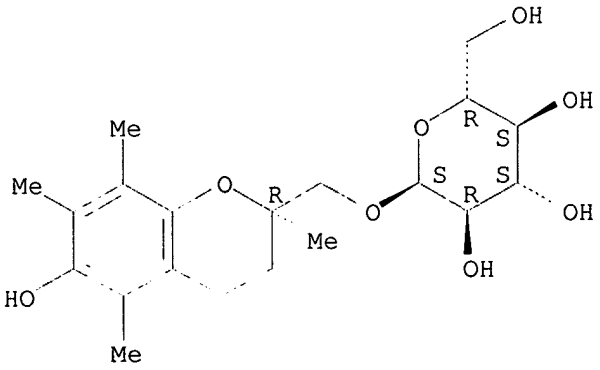
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



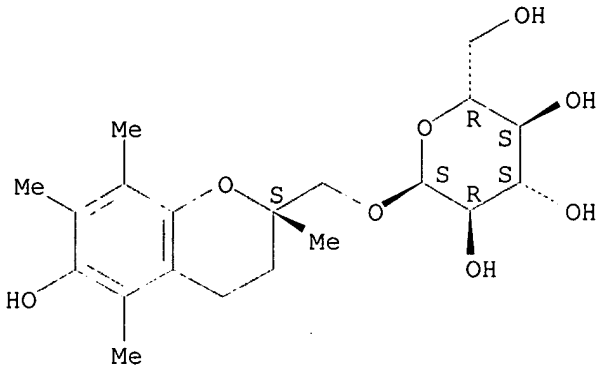
RN 187799-01-5 HCAPLUS
CN .alpha.-D-Glucopyranoside, [(2R)-3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 187799-02-6 HCAPLUS
CN .alpha.-D-Glucopyranoside, [(2S)-3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methyl (9CI) (CA INDEX NAME)

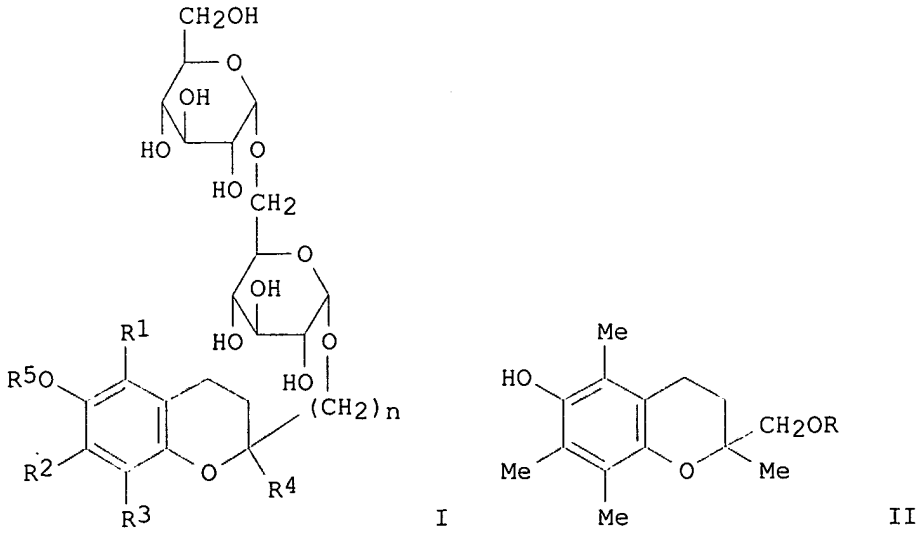
Absolute stereochemistry.



L42 ANSWER 38 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 1997:12371 HCAPLUS
DN 126:75190
TI Preparation of chromanol glycosides as antioxidants
IN Murase, Hironori; Kunieda, Tsutomu
PA Shii Shii Ai Kk, Japan
SO Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C07H015-26
ICS C07H017-075; C09K015-06; C09K015-08; C12P019-58; C12P019-60
CC 33-9 (Carbohydrates)
Section cross-reference(s): 1
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 08269080	A2	19961015	JP 1995-77977	19950403 <--
PRAI JP 1995-77977		19950403 <--		

OS MARPAT 126:75190
GI



I II

AB The title compds. (I; R1, R2, R3, R4 = H, lower alkyl; R5 = H, lower alkyl or acyl; H atoms of sugar hydroxy groups are optionally substituted with lower alkyl or acyl; n = 0-4) are prepd. by sequential enzymic glycosidation of chromanol in the presence of .alpha.-glucosidase and .beta.-glucoamylase. I possess higher water-soly. than that of Torolox (sic), 2-substituted alc., and antioxidant activity superior to that of vitamin C. Thus, a 5% (wt./vol.) DMSO soln. of chromanol deriv. (II; R = H) (120 mL) and 800 U .alpha.-glucoamylase derived form Bacillus stearothermophilus were added to a 30% aq. maltose soln. (120 mL) in 50 mM phosphoric acid buffer (pH 6.0) and resulting mixt. was allowed to react at 50.degree. for 20 h, boiled for 15 min to deactivate the enzyme, treated with 2,400 U glucoamylase derived from Rhizopus, allowed to react at 50.degree. for 24 h, boiled for 15 min to deactivate the enzyme, and applied to a XAD-4 column. The column was eluted with 30 and 80% MeOH to give a chromanol glycoside-contg. fraction which was further purified by silica gel chromatog. to give .apprx.2,000 mg chromanylmethyl glucoside II (R = .alpha.-D-glucopyranosyl) and .apprx.1,100 mg chromanylmethyl isomaltoside I (n = 1, R1 = R2 = R3 = R4 = M2, R5 = H). The latter compd. showed water soly. of .apprx.1,000 mg/mL vs. Torolox 0.2 mg.mL and antioxidant activity more effective than ascorbic acid for inhibiting autoxidn. of multilayer liposome in the presence of 2,2'-azobis(2-amidinopropane) dihydrochloride (radical initiator).

ST chromanol glycoside prepn antioxidant; chromanylmethyl isomaltoside prepn antioxidant; enzymic glycosidation chromanol; glucosidase glucoamylase glycosidation catalyst

IT Antioxidants
Glycosylation
(prepn. of chromanol glycosides as antioxidants by enzymic glycosidation of chromanol deriv.)

IT Glycosylation catalysts
(.alpha.-glucosidase and .beta.-glucoamylase; prepn. of chromanol glycosides as antioxidants by enzymic glycosidation of chromanol deriv.)

IT 9001-42-7, .alpha.-Glucosidase
RL: CAT (Catalyst use); USES (Uses)
(Bacillus stearothermophilus and Saccharomyces-derived; prepn. of chromanol glycosides as antioxidants by enzymic glycosidation of chromanol deriv.)

IT 9032-08-0, Glucoamylase
RL: CAT (Catalyst use); USES (Uses)
(Rhizopus-derived .beta.-glucoamylase; prepn. of chromanol glycosides as antioxidants by enzymic glycosidation of chromanol deriv.)

IT 69-79-4, Maltose
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of chromanol glycosides as antioxidants)

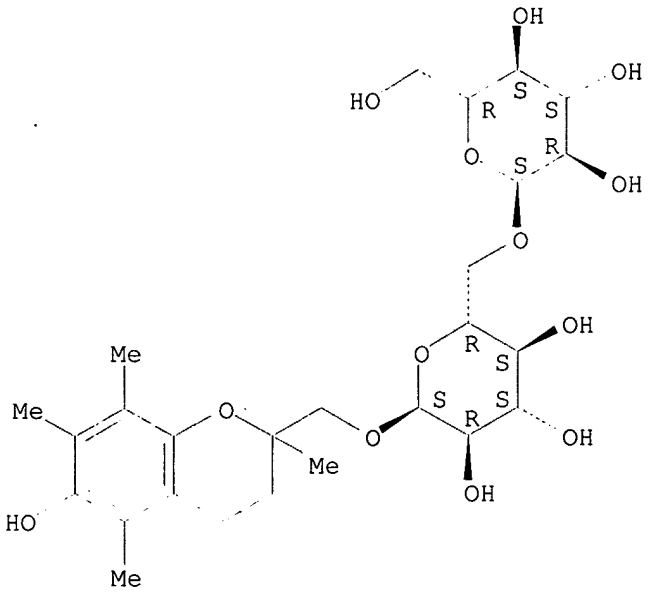
IT **184843-57-0P**
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of chromanol glycosides as antioxidants by enzymic glycosidation of chromanol deriv.)

IT **160455-95-8P**
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of chromanol glycosides as antioxidants by enzymic glycosidation of chromanol deriv.)

IT 50-99-7P, Glucose, preparation
RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of chromanol glycosides as antioxidants by enzymic glycosidation of chromanol deriv.)

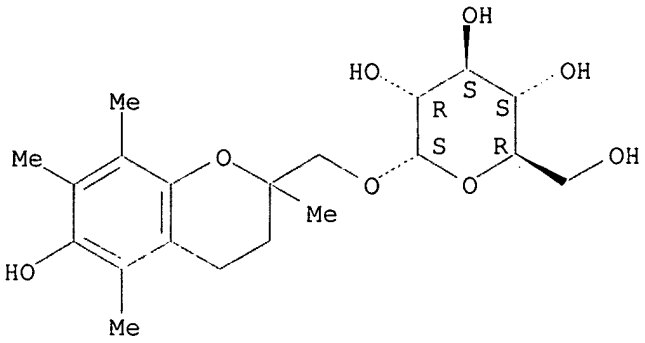
IT 79907-49-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of chromanol glycosides as antioxidants by enzymic glycosidation of chromanol deriv.)
IT **184843-57-0P**
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of chromanol glycosides as antioxidants by enzymic glycosidation of chromanol deriv.)
RN 184843-57-0 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl 6-O-.alpha.-D-glucopyranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **160455-95-8P**
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of chromanol glycosides as antioxidants by enzymic glycosidation of chromanol deriv.)
RN 160455-95-8 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

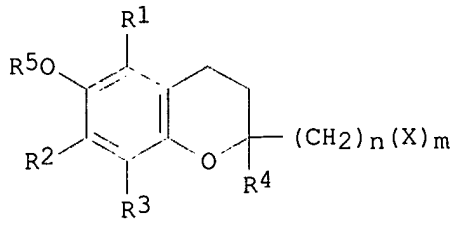
Absolute stereochemistry.



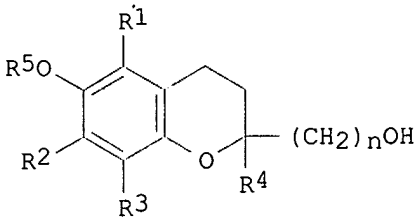
L42 ANSWER 39 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 1995:308684 HCAPLUS
DN 122:81889
TI Novel chromanol glycoside and method for production thereof.
IN **Murase, Hironobu**; Kunieda, Tsutomu; Tsujii, Tetsuya
PA CCI Corp., Japan
SO Eur. Pat. Appl., 38 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM C07H015-26
ICS C07H017-065; A23L003-3562; C11B005-00
CC 33-3 (Carbohydrates)
FAN.CNT 1

	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE	
PI	EP 611152	A1	19940817		EP 1994-300958	19940210	<--
	EP 611152	B1	19980107				
	R: DE, FR, GB						
	JP 07118287	A2	19950509		JP 1993-338083	19931228	<--
	US 5478812	A	19951226		US 1994-195113	19940210	<--
	US 5889164	A	19990330		US 1995-534409	19950927	<--
PRAI	JP 1993-23026		19930210	<--			
	JP 1993-221490		19930906	<--			
	JP 1993-338083		19931228	<--			
	US 1994-195113		19940210	<--			

OS MARPAT 122:81889
GI



I



II

AB Title compds. I (R1, R2, R3, R4 = H, lower alkyl; R5 = H, lower alkyl, lower acyl; X = monosaccharide residue, oligosaccharide residue, providing the H atom of the HO group of saccharide residue may be substituted by lower alkyl, lower acyl; n = 0-4; m = 1-6), useful as water sol. antioxidants in heat and pH stability, are prepd. by reaction of II with an oligosaccharide, (sol.)starch, cyclodextrin in presence of an enzyme catalyst for transglycosidation. Maltose and II (R1-4 = Me, R5 = H, n = 1) and .alpha.-glucosidase were reacted at 20.degree. for 20 h to give I (R1-4 = Me, R4 = H, X = .alpha.-D-glucopyranosyl, m = n = 1). Antioxidant activity was demonstrated.

ST chromanol glycoside prepn antioxidant

IT Antioxidants
(prepn. of chromanol glycosides as antioxidants)

IT Glycosides
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepn. of chromanol glycosides as antioxidants)

IT 9001-42-7, .alpha.-Glucosidase 9030-09-5, Cyclodextrin glucanotransferase
RL: CAT (Catalyst use); USES (Uses)
(prepn. of chromanol glycosides as antioxidants)

IT 69-79-4, Maltose 10016-20-3, .alpha.-Cyclodextrin 53101-54-5 72312-27-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of chromanol glycosides as antioxidants)

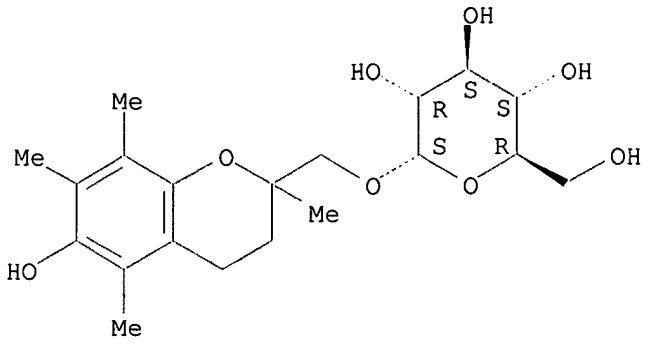
IT **160455-95-8P 160455-96-9P 160455-97-0P 160455-98-1P**
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepn. of chromanol glycosides as antioxidants)

IT **160455-95-8P 160455-96-9P 160455-97-0P 160455-98-1P**
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepn. of chromanol glycosides as antioxidants)

RN 160455-95-8 HCAPLUS

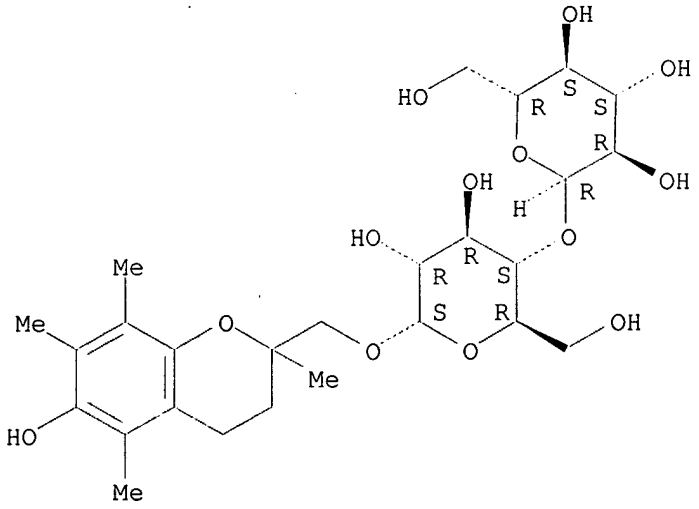
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



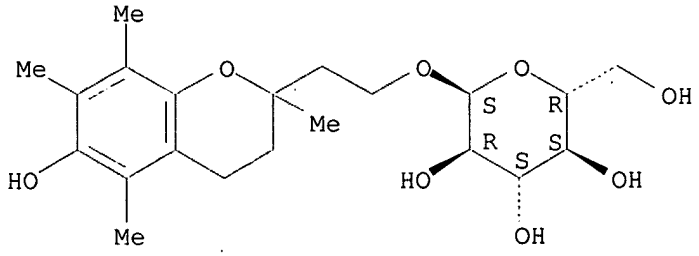
RN 160455-96-9 HCAPLUS
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl 4-O-.alpha.-D-glucopyranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



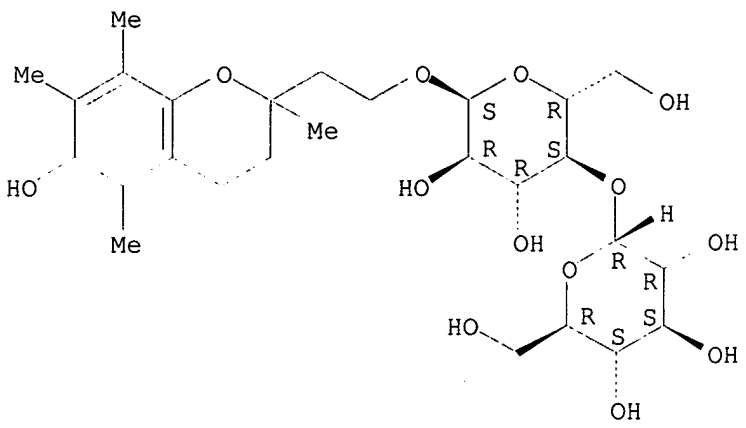
RN 160455-97-0 HCAPLUS
CN .alpha.-D-Glucopyranoside, 2-(3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)ethyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 160455-98-1 HCAPLUS
CN .alpha.-D-Glucopyranoside, 2-(3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)ethyl 4-O-.alpha.-D-glucopyranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 40 OF 40 HCAPLUS COPYRIGHT 2003 ACS
AN 1992:598235 HCAPLUS
DN 117:198235
TI Skin-lightening cosmetics
IN Kikuchi, Hajime; Nishio, Hiroyuki; Uchiyama, Hiromi; Shirane, Miyako
PA Kanebo, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K007-00
ICS C07D407-12; C07D407-14
CC 62-4 (Essential Oils and Cosmetics)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 04149113	A2	19920522	JP 1990-271329	19901008 <--
PRAI JP 1990-271329		19901008 <--		

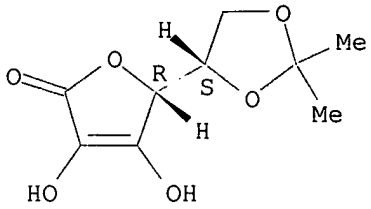
OS MARPAT 117:198235
AB A skin-lightening cosmetic contains tocopherol L-ascorbic acid dicarboxylic acid diester. For example, a cosmetic consisted of .alpha.-tocopherol-L-ascorbic acid-3-succinic acid diester 3, olive oil 15, iso-Pr myristate 5, polyoxyethylene nonylphenyl ether 0.5, glycerin 5, methylparaben 0.1, EtOH 7, and water to 100% by wt.
ST skin lightening tocopherol ascorbate succinate
IT Cosmetics
(skin-lightening, tocopherol ascorbate dicarboxylic acid esters in)
IT 144088-84-6 144088-85-7 144088-86-8 **144088-87-9**
144116-08-5 144136-68-5 144144-14-9
RL: BIOL (Biological study)
(cosmetics contg., skin-lightening)
IT **144088-87-9**
RL: BIOL (Biological study)
(cosmetics contg., skin-lightening)
RN 144088-87-9 HCAPLUS
CN Galactaric acid, [3,4-dihydro-2,7,8-trimethyl-2-(4,8,12-trimethyltridecyl)-2H-1-benzopyran-6-yl] ester, 2-ester with 5,6-O-(1-methylethylidene)-L-ascorbic acid (9CI) (CA INDEX NAME)

CM 1

CRN 15042-01-0

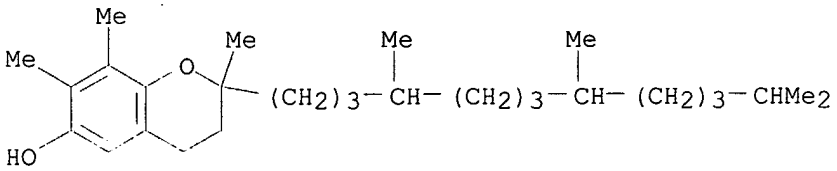
CMF C9 H12 O6

Absolute stereochemistry.



CM 2

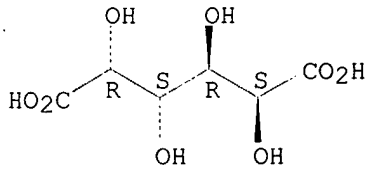
CRN 7616-22-0
CMF C28 H48 O2



CM 3

CRN 526-99-8
CMF C6 H10 O8

Relative stereochemistry.



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FILE COVERS 1974 TO 16 Jan 2003 (20030116/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all tot

L54 ANSWER 1 OF 4 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
AN 2002143701 EMBASE
TI Inhibitory effect of a novel water-soluble vitamin E derivative on **atherosclerosis** in rabbits.

AU Yoshida N.; Murase H.; Kunieda T.; Toyokuni S.; Tanaka T.; Terao J.; Naito Y.; Tanigawa T.; Yoshikawa T.
CS N. Yoshida, First Dept. of Internal Medicine, Kyoto Prefectural Univ. of Medicine, Kawaramachi-Hirokoji, Kamigyo-ku, Kyoto 602-8566, Japan. nyoshida@koto.kpu-m.ac.jp
SO Atherosclerosis, (2002) 162/1 (111-117).
Refs: 30
ISSN: 0021-9150 CODEN: ATHSBL
PUI S 0021-9150(01)00702-X
CY Ireland
DT Journal; Article
FS 018 Cardiovascular Diseases and Cardiovascular Surgery
030 Pharmacology
037 Drug Literature Index
LA English
SL English
AB A novel vitamin E derivative that is freely soluble in water, **2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol** (TMG), was evaluated for ability to inhibit development of **atherosclerosis** in Watanabe heritable hyperlipidemic (WHHL) rabbits or cholesterol-loaded New Zealand White rabbits. Although TMG rapidly entered the circulation blood after oral administration, the blood TMG concentration remained low, while neither TMG nor its metabolites appeared in the low-density lipoprotein (LDL) fraction. TMG did not decrease serum total cholesterol and the various lipoprotein-associated cholesterol fractions (very LDL-, or high-density lipoprotein- (HDL) cholesterol). TMG reduced the serum concentration of thiobarbituric acid-reactive substances (TBARS; an index of lipid peroxidation) in cholesterol-loaded rabbits but not WHHL rabbits. Nonetheless, TMG inhibited aortic **atherosclerosis** as effectively as probucol in both models. Our results indicate that TMG opposes progression of **atherosclerosis** not only by preventing oxidation of LDL, but also by presently unknown mechanisms. Even an antioxidant with no uptake by LDL apparently can inhibit development of **atherosclerosis** despite a very low serum concentration. .COPYRGT. 2002 Elsevier Science Ireland Ltd. All rights reserved.
CT Medical Descriptors:
***aorta atherosclerosis: DT, drug therapy**
***aorta atherosclerosis: PC, prevention**
rabbit
drug solubility
drug effect
hyperlipidemia
circulation
cholecystokinin blood level
drug blood level
lipid peroxidation
blood level
drug efficacy
disease course
drug mechanism
drug transport
nonhuman
animal experiment
animal model
controlled study
article
priority journal
Drug Descriptors:
*alpha tocopherol derivative: CM, drug comparison
*alpha tocopherol derivative: CR, drug concentration
*alpha tocopherol derivative: DV, drug development

*alpha tocopherol derivative: DT, drug therapy
*alpha tocopherol derivative: PK, pharmacokinetics
*alpha tocopherol derivative: PD, pharmacology
*alpha tocopherol derivative: PO, oral drug administration
***2 (alpha dextro glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: CM, drug comparison**
***2 (alpha dextro glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: CR, drug concentration**
***2 (alpha dextro glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: DV, drug development**
***2 (alpha dextro glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: DT, drug therapy**
***2 (alpha dextro glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: PK, pharmacokinetics**
***2 (alpha dextro glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: PD, pharmacology**
***2 (alpha dextro glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: PO, oral drug administration**
drug metabolite
low density lipoprotein: EC, endogenous compound
cholesterol: EC, endogenous compound
very low density lipoprotein cholesterol: EC, endogenous compound
high density lipoprotein cholesterol: EC, endogenous compound
thiobarbituric acid reactive substance: EC, endogenous compound
unclassified drug
RN (cholesterol) 57-88-5

L54 ANSWER 2 OF 4 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
AN 2001267539 EMBASE
TI In vivo radioprotection by .alpha.-TMG: Preliminary studies.
AU Satyamitra M.; Uma Devi P.; Murase H.; Kagiya V.T.
CS P. Uma Devi, Department of Research, Jawaharlal Nehru Cancer Hospital, Research Center, Idgah Hills, Bhopal 462001, India
SO Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, (8 Aug 2001) 479/1-2 (53-61).
Refs: 29
ISSN: 0027-5107 CODEN: MRFMEC
PUI S 0027-5107(01)00135-X
CY Netherlands
DT Journal; Article
FS 014 Radiology
022 Human Genetics
030 Pharmacology
037 Drug Literature Index
052 Toxicology
LA English
SL English
AB .alpha.-TMG is a novel water-soluble derivative of Vitamin E that has shown excellent antioxidant activity. The parent compound has demonstrated protection against radiation induced chromosomal damage in vivo. Hence, the preliminary experiments to determine the radioprotective activity of .alpha.-TMG were carried out in adult Swiss albino mice. Acute toxicity of the drug was studied taking 24 h, 72 h and 30 day mortality after a single intraperitoneal injection of 500-2000 mg/kg body weight of the drug. The drug LD(50) for 24 h and 72 h/30 day survival were found to be 1120 and 1000 mg/kg body weight, respectively. The optimum time of drug administration and drug dose-dependent effect on in vivo radiation protection of bone marrow chromosomes was studied in mice. Injection of 600mg/kg of the drug 15min before or within 5, 15 or 30 min after 3 Gy whole body gamma radiation resulted in a significant decrease in the aberrant metaphases percent at 24 h post-irradiation; the maximum effect was seen when the drug was given immediately after irradiation. Injection of 200-800 mg/kg TMG within 5 min of irradiation with 3 Gy produced a

significant dose-dependent reduction in the radiation induced percent aberrant metaphases and in the frequency of micronucleated erythrocytes at 24 h after exposure, with a corresponding decrease in the different types of aberrations. The optimum dose for protection without drug toxicity was 600 mg/kg body weight. At this dose, TMG produced 70 and >60% reduction in the radiation induced percent aberrant metaphases and micronucleated erythrocytes, respectively. The high water solubility and effectiveness when administered post-irradiation favor TMG as a likely candidate for protection in case of accidental exposures.

CT Medical Descriptors:
*radiation protection
*bone marrow toxicity: ET, etiology
*chromosome aberration: ET, etiology
*chromosome breakage: ET, etiology
in vivo study
dose time effect relation
dose response
bone marrow cell
gamma irradiation
metaphase chromosome
drug effect
micronucleus
erythrocyte
drug solubility
radiation exposure
cell protection
cell count
mutation rate
dicentric chromosome
polyploidy
nonhuman
mouse
animal experiment
animal model
controlled study
animal tissue
article
priority journal
Drug Descriptors:
*alpha tocopherol derivative: DO, drug dose
*alpha tocopherol derivative: TO, drug toxicity
*alpha tocopherol derivative: PD, pharmacology
*alpha tocopherol derivative: IP, intraperitoneal drug administration
***2 (alpha dextro glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: DO, drug dose**
***2 (alpha dextro glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: TO, drug toxicity**
***2 (alpha dextro glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: PD, pharmacology**
***2 (alpha dextro glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: IP, intraperitoneal drug administration**
*radioprotective agent: DO, drug dose
*radioprotective agent: TO, drug toxicity
*radioprotective agent: PD, pharmacology
*radioprotective agent: IP, intraperitoneal drug administration
unclassified drug

L54 ANSWER 3 OF 4 EMBASE
AN 1998004052 EMBASE
TI Antioxidant activity of a novel vitamin E derivative, **2-(. alpha.-D- glucopyranosyl)methyl-2,5,7,8-tetramethylchroman**

-6-ol.

AU Murase H.; Moon J.-H.; Yamauchi R.; Kato K.; Kunieda T.; Yoshikawa T.; Terao J.
CS H. Murase, CCI Corporation, 12 Shinhazama, Seki City, Gifu 501-32, Japan

SO Free Radical Biology and Medicine, (1998) 24/2 (217-225).
Refs: 41
ISSN: 0891-5849 CODEN: FRBMEH
PUI S 0891-5849(97)00221-9
CY United States
DT Journal; Article
FS 029 Clinical Biochemistry
037 Drug Literature Index
LA English
SL English

AB A novel vitamin E derivative, **2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8- tetramethylchroman-6-ol** (TMG), has excellent water-solubility (> 1 x 103 mg/ml) The antioxidant activity of TMG was investigated. Kinetic studies of the inhibition of radical-chain reaction of methyl linoleate in solution demonstrated that the peroxyl radical-scavenging activity was not changed by the replacement of phytryl side chain of vitamin E to glucosyl group. TMG acted as an effective inhibitor on lipid peroxidation of egg yolk phosphatidylcholine (PC)-liposomal suspension induced by a water-soluble and a lipid-soluble radical generator, 2,2'-azobis(2- amidinopropane)dihydrochloride (AAPH) and 2,2'-azobis(2,4- dimethylvaleronitrile) (AMVN) Its effectiveness was higher than that of ascorbic acid (AsA) when liposomal suspension was exposed to a lipid-soluble radical generator, AMVN TMG also showed an excellent antioxidant activity on cupric ion-reduced lipid peroxidation of PC-liposomal suspension, and suppressed the oxidation of rat brain homogenate which contained trace level of iron ion. On the other hand, AsA acted as a prooxidant on both the cupric ion-induced liposomal peroxidation and the oxidation of rat brain homogenate. When human plasma was exposed to either AAPH or AMVN, the accumulation of cholesteryl ester hydroperoxides was retarded by the addition of TMG.

CT Medical Descriptors:
*antioxidant activity
solubility
lipid peroxidation
structure activity relation
inhibition kinetics
brain homogenate
nonhuman
rat
animal tissue
animal cell
article
priority journal
Drug Descriptors:
*liposome
*antioxidant: DV, drug development
*antioxidant: PD, pharmacology
*alpha tocopherol derivative: DV, drug development
*alpha tocopherol derivative: PD, pharmacology
***2 (alpha glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: DV, drug development**
***2 (alpha glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: PD, pharmacology**
linoleic acid methyl ester
free radical
2,2' azobis(2 amidinopropane)
2,2' azobis(2,4 dimethylvaleronitrile)
cholesterol ester

unclassified drug
RN (linoleic acid methyl ester) 112-63-0; (2,2' azobis(2 amidinopropane)) 13217-66-8
CO Eisai (Japan); Wako (Japan)

L54 ANSWER 4 OF 4 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
AN 97039193 EMBASE
DN 1997039193
TI Synthesis of a novel vitamin E derivative, **2-(.alpha.-D- glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol**, by .alpha.-glucosidase- catalyzed transglycosylation.
AU Murase H.; Yamauchi R.; Kato K.; Kunieda T.; Terao J.
CS H. Murase, CCI Corporation, 12 Shinhazama, Seki City, Gifu 501-32, Japan
SO Lipids, (1997) 32/1 (73-78).
Refs: 27
ISSN: 0024-4201 CODEN: LPDSAP
CY United States
DT Journal; Article
FS 029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
LA English
SL English
AB A novel derivative of vitamin E, vitamin E glucoside, was synthesized from 2-hydroxymethyl-2,5,7,8-tetramethylchroman-6-ol and maltose in a solution containing DMSO by transglycosylation with .alpha.-glucosidase from Saccharomyces species. The glycosylated product was identified as **2(.alpha.-D- glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol** (TMG) by mass spectrometry and nuclear magnetic resonance spectroscopy. The optimal pH of transglycosylation was 5.5, and the yield of TMG increased as the concentration of maltose increased. TMG has high solubility in water (>1 x 103 mg/mL). The 1,1-diphenyl-2-picrylhydrazyl radical scavenging activity of TMG was found to be nearly the same as those of .alpha.-tocopherol, Trolox (2- carboxy-2,5,7,8-tetramethylchroman-6-ol), and ascorbic acid.
CT Medical Descriptors:
*glycosylation
article
catalysis
controlled study
drug activity
drug solubility
drug structure
drug synthesis
ph
Drug Descriptors:
***2 (alpha glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: AN, drug analysis**
***2 (alpha glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: CM, drug comparison**
***2 (alpha glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: DV, drug development**
***2 (alpha glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: PD, pharmacology**
*alpha glucosidase
*alpha tocopherol: PD, pharmacology
*alpha tocopherol: CM, drug comparison
*alpha tocopherol: AN, drug analysis
*alpha tocopherol derivative: AN, drug analysis
*alpha tocopherol derivative: CM, drug comparison
*alpha tocopherol derivative: PD, pharmacology

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     *alpha tocopherol derivative: DV, drug development
     *ascorbic acid: CM, drug comparison
     *ascorbic acid: PD, pharmacology
     *trolox c: PD, pharmacology
     *trolox c: CM, drug comparison
     *trolox c: AN, drug analysis
     2 hydroxymethyl 2,5,7,8 tetramethylchroman 6 ol
     antioxidant
     chroman derivative
     free radical
     maltose
     scavenger
     unclassified drug
RN   (alpha glucosidase) 9001-42-7; (alpha tocopherol) 1406-18-4, 1406-70-8,
     52225-20-4, 58-95-7, 59-02-9; (ascorbic acid) 134-03-2, 15421-15-5,
     50-81-7; (trolox c) 56305-04-5; (maltose) 16984-36-4, 69-79-4
CO   Aldrich (United States); Eisai (Japan)


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               SAV L3 FONDA890/A
L4             STR L1
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L6             STR L4
L7             1 S L6 CSS SAM SUB=L3
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L9            24 S L3 AND OC5/ES NOT L8
L10            STR L6
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L12           21 S L11 NOT L8
L13            4 S L9 NOT L12
L14            STR
L15            0 S L14 SAM SUB=L3
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               SAV L18 FONDA890C/A

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L21           28 S E3-E34 AND L20
               E YOSHIKAWA T/AU
L22          272 S E3
               E YOSHIKAWA TOSHIKAZU/AU
L23          661 S E2,E3
               E MURASE H/AU
L24           26 S E3
L25           47 S E25
L26            1 S E27
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                E YOSHIDA N/AU
L27          395 S E3,E4
                E YOSHIDA NORIMASA/AU
L28          165 S E3
L29           32 S L20 AND L22-L28
L30            3 S L20 AND ?ARTERIO?
                E ANTIARTERIO/CT
L31         5486 S E6,E7
                E E6+ALL
                E E6+ALL
L32        26978 S E5+NT
L33            2 S MONKEBERG?(L)?SCLERO?
L34            3 S L20 AND L31-L33
L35            3 S L30,L34
L36           19 S 2 ALPHA D GLUCOPYRAN? METHYL 2 5 7 8 TETRAMETHYLCHROMAN 6 OL

     FILE 'REGISTRY' ENTERED AT 18:49:05 ON 22 JAN 2003
L37            1 S 160455-95-8
L38            0 S 160455-95-8/CRN

     FILE 'HCAPLUS' ENTERED AT 18:49:32 ON 22 JAN 2003
L39           36 S L37
L40           37 S L36,L39
L41           43 S L20,L29,L30,L35,L40
L42           40 S L41 AND (PD<=20011009 OR PRD<=20011009 OR AD<=20011009)
L43            3 S L41 NOT L42

     FILE 'REGISTRY' ENTERED AT 18:51:25 ON 22 JAN 2003
L44           22 S L18 NOT L37

     FILE 'HCAPLUS' ENTERED AT 18:52:06 ON 22 JAN 2003

     FILE 'EMBASE' ENTERED AT 18:52:44 ON 22 JAN 2003
L45            0 S L18
L46            3 S L36
L47            2 S "2 (ALPHA DEXTRO GLUCOPYRANOSYL)METHYL 2,5,7,8 TETRAMETHYLCHR
L48            2 S "2 (ALPHA GLUCOPYRANOSYL)METHYL 2,5,7,8 TETRAMETHYLCHROMAN 6
L49            4 S L46-L48
                E ARTERIOSCLEROSIS/CT
L50        54293 S E3+NT
                E E3+ALL
L51       116000 S E6+NT
L52            1 S L49 AND L50,L51
L53            1 S L49 AND (?ARTERIO? OR ?ATHEROSCL?)
L54            4 S L49,L52,L53

     FILE 'EMBASE' ENTERED AT 18:56:09 ON 22 JAN 2003
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